

The next Annual Meeting of the Michigan State Medical Society will
be held in Detroit, June 11th and 12th, 1903

The Journal of the Michigan State Medical Society

The Official Organ of the State and County Societies of Michigan

Volume I
Number 3

DETROIT, NOVEMBER, 1902

Subscription, \$2 per Year
Single Copies, 20 Cents

TABLE OF CONTENTS

ORIGINAL ARTICLES	
OPTIMISM AND PESSIMISM IN MEDICAL PRACTICE, BY DAVID INGLIS, DETROIT.....	97
DISCUSSION BY DR. HERDMAN, ANN ARBOR.....	108
DR. INGLIS, DETROIT.....	109
THE VALUE OF PLASTER CASTS FOR ACCURATE CASE RECORDS AND AS AIDS IN THE TEACHING OF THE DIFFERENTIAL DIAGNOSIS OF ABDOMINAL TUMORS, BY REUBEN PETERSON, ANN ARBOR.....	110
SEQUELAE OF OPHTHALMIA NEONATORUM, BY DON M. CAMPBELL, DETROIT.....	111
DISCUSSION BY DR. GILMAN, DETROIT.....	114
DR. HOLLER, GRAND RAPIDS....	114
DR. KING, MANISTEE.....	114
DR. BARBER, LANSING.....	114

DR. CAMPBELL, DETROIT.....	115
THE TREATMENT OF TYPHOID FEVER, BY GEO. DUFFIELD, DETROIT, 115	
ANEURISM OF THE INNOMINATE ARTERY, BY LOUIS J. HIRSCHMAN, DETROIT.....	121
DISCUSSION BY DR. TIBBALS, DETROIT.....	123
DR. GUNSOLUS, DETROIT.....	123
DR. HIRSCHMAN, DETROIT.....	123
THE ADMINISTRATION OF NORMAL SALINE SOLUTION, BY ALEXANDER MACKENZIE CAMPBELL, GRAND RAPIDS.....	123
DISCUSSION BY DR. YATES, DETROIT.....	126
DR. DELOS L. PARKER, DETROIT, 126	
DR. ALEXANDER M. CAMPBELL, GRAND RAPIDS.....	127
ANNUAL ADDRESS OF THE RETIRING PRESIDENT OF THE WAYNE	

COUNTY MEDICAL SOCIETY, BY SAMUEL BELL, DETROIT.....	127
ABDOMINAL AND PELVIC DRAINAGE RELATIVE TO GYNECOLOGY, BY O. H. CLARK, KALAMAZOO.....	131

EDITORIAL

OLD MEN IN STATE MEDICAL ORGANIZATIONS.....	132
INTERMITTENT ESSENTIAL FEVER....	135
THE COUNTY SOCIETY A UNIT.....	137
THE PRESENT STATUS OF THE BILE QUESTION.....	137

COMMUNICATIONS

OUR WORK OF ORGANIZATION.....	138
REPORT OF COMMITTEE ON NECROLOGY.....	141
REVISED CONSTITUTION AND BY-LAWS FOR COUNTY SOCIETIES....	144
BOOKS RECEIVED.....	148
BOOK REVIEW.....	148

Original Articles

OPTIMISM AND PESSIMISM IN MEDICAL PRACTICE.

DAVID INGLIS,
Detroit.

Some years ago a surgical friend of mine made the cheering remark to me: "You neurologists see a lot of very interesting cases, but you can do nothing for them."

My reply was that if I did not feel that, on an average, I could secure as good results with my patients as my surgical friend was able to secure with his, I would at once take in my shingle and go into the life insurance business.

Again, Diller, of Philadelphia, recently wrote a very readable paper on this singular title: "What is the use of making a diagnosis in nervous diseases, since nothing can be done anyway?" And the remarkable part of his paper was that he found excellent reasons for trying to make a diagnosis, but did not deem it

worth while to dispute the pessimistic summing up of the curability of nervous diseases.

I quote these remarks because I think they typify the attitude of mind held by, not only the great majority of surgeons, but by very many physicians, in regard to the hopelessness of treatment in cases of nervous disease. This has been my reason for taking for my subject to-night, "The Prognosis of Nervous Diseases."

Within the limits of the paper it will, of course, be impossible to take up this subject in all of its possible applications, but it seems to me that it may be of service to us, as physicians—and through us to our patients—if we consider some of the phases of this question which appeal to men who are in general practice.

It is to the general practitioner that almost all cases of nervous diseases apply, at the beginning of their sickness, and it is self-evident that upon the attitude of the general practitioner will depend, to no small degree, the future of the patient.

If this paper is to be of any value it will be because it will, to some extent, controvert the pessimistic positions which were implied in the above curious illustrations of common attitude of mind held by many physicians in regard to the prognosis of nervous diseases. In all seriousness, I believe that such a pessimistic attitude is unwarranted by the facts and that, on the contrary, in the treatment of many forms of nervous disease we have valid grounds for taking a hopeful view as regards the future of the patient and, consequently, for undertaking his treatment with that courage and determination and fixity of purpose which is necessary to success in the treatment of any form of disease.

When we are considering the prognosis of any case, the future of the patient presents itself to us in more than one way. Sometimes the question is simply, "Will the patient live?"; very often the question is, "If he lives will life be a desirable thing to him?" and, in very many instances, the important question is, "To what extent can the patient be restored to a useful and happy life, or to what limitations in his enjoyment and activities must he be prepared to accommodate himself?" The function of the physician is by no means confined to the bare problem of keeping a man alive; it extends much further. It is our province to endeavor to restore men to the most useful and comfortable existence possible to them.

Nothing is more evident, in the study of various forms of disease, than the fact that nature has so ordained it that almost every organ in the body is capable of adjusting itself to very profound changes, and doing so successfully and for long periods of time, providing only that time

be allowed for the adjustment. For instance: the heart is liable to stop suddenly, not alone from some organic affection of the organ, but from sudden alterations in the innervation of the heart, or from a clot of blood forming in it, or from sudden changes in the blood pressure, and yet every one of us has had abundant opportunity to know that, in organic disease of the heart, sudden death is not the rule, but quite the contrary; that it is exceedingly difficult for a man with an organic heart disease to die.

I well remember a patient of mine, who was referred to me by my good friend, Dr. Heaton, who was retiring from practice at that time. He said to me, "Doctor, she has a badly diseased heart, but I confess that I am unable to tell you just what valves are affected." So the doctor and I auscultated with great care and frequency and after every consultation acknowledged ourselves completely baffled to make out what the various murmurs meant. I then took charge of the old lady, and for a period of many years used to study that heart of hers. She became quite interested in the matter herself and told me that, when she died, she wanted me to make a post-mortem and find out what really did ail her heart.

As in so many of these cases, death seemed to come to her with the greatest reluctance; in fact, it was not until cancer developed that she succeeded in dying. When I made the post-mortem I found out why Dr. Heaton and I had been puzzled about her heart murmurs. There was not a valve in her heart that was not affected, and badly affected; but most astounding of all was the atrophy of the ventricular walls. So completely were they wasted away that when I took out the heart I was puzzled to

know which was ventricle and which was auricle. The muscular substance had been reduced to such an extent that the wall of the left ventricle was certainly no thicker than the usual thickness of the left auricle, and yet that flabby, hopelessly demoralized heart had gone on, kept up her circulation and sustained life. Nothing could be more convincing as to the possibilities of adjustment of a damaged organ.

Now this same faculty of adjustment is characteristic of the nervous system as a whole. Consider for a moment the wretched nutrition of the brain cells which must go on in an advanced case of pulmonary tuberculosis. The patient is emaciated to the last degree, the anaemia is profound, the toxicity of the blood must be very great, and yet, once the brain has become accommodated to this condition of things it goes on performing its functions pretty much as if nothing was the matter. Indeed, it sometimes seems as if the consumptive has a mind more brilliant, quick, alert than it was before the patient became sick at all.

In this connection let me call your attention to something with which every one of us is almost certain to be familiar. I refer to the *preservative effects of chronic invalidism*. It seems as if these patients not only succeed in living, but their lives are actually prolonged by their invalidism.

When my father died I inherited from him one of his life-long charity patients. How many years she had been a burden on his shoulders I do not know, but I regarded her as an unfortunate old lady when I began the care of her, twenty-eight years ago. While I thought of her as an old lady, she had a singularly beautiful and smooth white skin, well formed breasts and a plump body. She immedi-

ately became the burden of my life. She was a most unreasonable woman in the demands she made upon the doctor. Every visit was prolonged, and the category of her miseries, ailments and sorrows was gone over with me with an endless repetition. Only her extreme poverty prevented me from abandoning the case almost as soon as I had entered on it. And so it went on until the march of progress made it necessary for their home to give place to a large manufacturing concern. The family moved into a distant part of the city, and I then refused to continue the case. Thirteen years went by, when a young man hailed me on the street and said, "Doctor, there is an old lady connected with our mission church who has been exceedingly anxious to see you. Would you go up and see her, just as a matter of charity?" Imagine my astonishment when I went in and found my old patient. She proceeded at once to tell me her tale of woe in exactly the same manner, and I should say in almost the identical words that I had heard so many times, years before. She still had her white skin and her pretty breasts and her plump arms. Her hair was still brown. She still rehearsed her sorrows; but time had passed her by and "never touched her." Her husband had taken to drink; her daughter was an opium eater—her sons had run away. Her married daughters never came home. The entire family was wrecked, but the chronic invalid had had none of the actual wear and tear of life. I have no doubt that there are many of you who could duplicate this story, who could tell of numerous broken-down mothers and daughters hastened to an early grave, while the invalid who had been the cause of it was perfectly well preserved.

As a further illustration of this same preservative effect of chronic invalidism, it is interesting to note the longevity of patients in our insane asylums. In every insane asylum there will be found patients whose nervous system is damaged—badly damaged—and yet, once the re-adjustment has taken place, these patients will outlive the ordinary expectation of life. They seem to be positively shielded from the actual damage to which a normal nervous system succumbs.

Some years ago an esteemed medical friend, who happened to have some very bad cases of hysteria at the time, read a paper before one of our societies in which he took the ground that hysteria was a very grave and incurable disease. I was very much struck with the paper at the time, because it seemed to me to be so exactly opposed to the facts.

Hysteria is a very prevalent disease; very large numbers of young people of both sexes—particularly females, however—exhibit at some period of their lives phenomena of hysterical affection. There is, for the time being, a profound alteration in the functional activity of the cerebral cortex, and at times the bodily symptoms seem to be of the most threatening sort; nay, more, not a few cases of hysteria show remarkable persistency in certain isolated phenomena. Cases of hysterical paralysis, and particularly cases of hysterical contracture, will endure for not only months, but years, and yet the curious fact remains that hysterical patients seldom die, and, with the rarest exceptions, they all recover. Even in the extreme cases of hysterical contracture, which have lasted for years, the outlook is by no means an unfavorable one. In some

of these cases the assistance of the surgeon needs to be called in; tendons are required to be cut, unused muscles require to be stimulated, but the year-long habit of contracture is capable of being broken into with the greatest rapidity.

It is important that we, as physicians, should recognize this, because it is precisely in these cases that quacks of all sorts, faith curists, christian scientists, bone-setters, osteopaths and enthusiasts of various sorts will take these cases, after regular physicians have pronounced them incurable, and bring about a cure which is genuine and complete.

Closely related to the prognosis of hysteria is the prognosis of neurasthenia. No class of patients, who consult the doctor, constitute a greater strain upon the vitality of the physician than do those cases of nervous exhaustion. For themselves they are very generally hopelessly pessimistic, and yet my own feeling, in regard to the great majority of cases of neurasthenia, is such that I enter upon the care of a case with cheerful and heartfelt enthusiasm. This does not mean that the physician is justified in expecting to work any miracles, nor does it justify the physician in leading the patient to expect any sudden or rapid restoration to comfortable life, but if the physician himself be gifted with an optimistic spirit, and if this spirit begets within him a courage which he can gradually infuse into the patient, if he can thoroughly win the confidence of the patient, and if then he can summon up a variety of resources, it is fair to look forward to a time when the patient will not only have gotten through his neurasthenia, but shall have gotten past it; when he shall look back upon his siege of nervous

exhaustion as a miserable thing in his past life. Very many of these patients, if they can be induced to follow the physician's plan steadfastly, can be restored to what can fairly be called perfect health. There are, however, not a few of them who must content themselves with a readjustment of their nervous expenditure to a more limited scale.

I remember a young lad who inherited \$27,000. Inside of three years his capital had disappeared, and he came to me to ask me to help him find a job. I found him not one, but three jobs; but steady labor to a \$27,000 young man proved irksome, and he was not a particularly well qualified employe. I finally told him that he must not visit me at my house or my office any more until he could come to me and prove, by doing it, that he could earn his own living. When he could do that he would be welcome again. Time went on, and the young man turned up neatly dressed in a very plain and inexpensive suit and said, "I have not come to ask for help, but to tell you that I have been earning my living and have had my salary raised twice in the last year." It is safe to say that the young man's mode of expenditure had materially altered. A large proportion of our neurasthenic patients have expended their nervous energies much as my young man spent his \$27,000. American men and women seem to think as he did—that they have an unbounded capital. It never occurs to them that a wise man spends his income and not his capital. If neurasthenic patients expect that they can be restored to such a degree of nervous vigor that they can resume their old habits and spend their capital without again becoming bankrupt, they are doomed to disappointment, but that under wise man-

agement almost all neurasthenics can be restored to useful life, and a happy one, I firmly believe.

There is one phase of the prognosis of neurasthenia which it is well to consider, and that is this: After exhausting diseases the whole body is often exceedingly debilitated. During the convalescence the problem before us is always that of securing prompt and perfect restoration of all the organs to their normal functional activity. Now, nothing is more certain than that it is a comparatively easy task, in many instances, to secure the restoration of the body weight, of the muscular bulk and the organic effectiveness of most of the bodily organs; but the re-accumulation of that surplus nervous energy which is essential to the normal activity of the cerebro-spinal axis is a much slower process. The importance of bearing this fact in mind is great, for upon it will depend the instructions we give the patient in regard to the resumption of the nervous expenditures. Take, for instance, a case of typhoid fever; notice how rapidly, during convalescence, the bodily weight is regained, the patient regains his color and, apparently, his muscular strength. In fact, it very commonly happens that a young man who has run through an attack of typhoid fever and has completed his convalescence, not only looks as well as he did before he had the typhoid, but will weigh perhaps ten pounds more than he ever did before in his life. People congratulate him on his excellent appearance, and the most natural thing in the world is for him to think that he is ready for any kind of activity, any amount of work, but while all this has been going on the restoration of nervous energy has been by no means as rapid nor as complete. It

takes a long time for a typhoid patient to get his nervous energy fully restored, and many of these cases have the unfortunate experience of breaking down their nervous system by attempting tasks for which the nervous system was not at all prepared. There is no necessary correspondence between the body weights, the general appearance of health and the actual reserve nervous energy of an individual.

Many of our neurasthenic patients are bodily fine to look at, and it requires a distinct effort for the physician to realize that the patient must be managed by keeping in view not his bodily appearance but his actual nervous reserve, and in our management of convalescents it is only by keeping this fact in mind that we will be able to guard the patient against a premature expenditure of nervous energy, which is liable to be exceedingly damaging, and is sometimes permanently so.

There is probably no form of nervous disease in which the question of prognosis plays a more important part than in that of traumatic neurasthenia. In the ordinary forms of nervous prostration the pessimism or optimism of the attending physician has a tremendous influence upon the future of the patient, but in all of those forms of traumatic neurosis in which suits for damages are concerned the attitude of the physician, from the moment that he is called to attend the case, plays an exceedingly important part.

Let us suppose that the physician, who first has charge of the case, recognizes the strong tendency of all neurasthenics to exaggerate their own miseries. Acting on this basis he makes as light as possible of the patient's subjective sensations, carefully abstains from asking him whether he has had this or that symptom, which

the patient has himself not mentioned, reassures the patient heartily as to the hopefulness of a speedy recovery, and, as soon as he can with safety do it, urges the patient to gradually increase the use of his powers; all my experience goes to show that, were this the usual course to be pursued, very many patients who have been injured would make a speedy recovery—so speedy, in many instances, that they would not think it worth while suing for damages.

What is the usual course? The attending physician pursues directly the opposite plan. In a natural, but most unfortunate, effort to be thorough in his examination of the patient, he begins to suggest new, and, to the patient, hitherto unknown symptoms which may reasonably be expected to occur after such an injury. Instead of trying to make the patient dwell but little on his symptoms, the physician, by constantly asking about each individual symptom, calls the patient's attention to it. By the time that a lawyer has gotten on to the track of the case and begins his exceedingly suggestive methods, the combination is complete. Between the patient's own injuries, his emotions, his hopes for large damages and the suggestion furnished, by the lawyer consciously and by the doctor unconsciously, the patient is almost certain to embark on a long career of unnecessary invalidism. It is not at all a question of the patient's essential honesty of purpose. No man can practice medicine without the keenest realization of the part that suggestion plays with very many of our patients, and, in these cases of traumatic neurasthenia, the combination of suggestions has a most disastrous effect upon the patient. Even the most honest of men, when he has be-

come thoroughly convinced that he has been very badly damaged and realizes that the time for the trial of his suit is not far ahead of him, finds it almost impossible to wish for or to attempt to be thoroughly cured before the time of the trial. It is simply human nature that, having been miserable for so long, he should want to be in a position to convince the jury, at the time of his trial, just how badly used up he has been. When the trial is over and the verdict settled for good the whole scene changes. The lawyer has no inducement to make any further suggestions, the patient has the rest of his life to look forward to; all of the inducements there are tend to make him wish for complete and speedy recovery. The physician may now go on with the treatment, on essentially the same lines which he carried out before, and there are not a few of us who have had the experience—and an exceedingly mortifying one it is—of testifying that, in our opinion, the patient's damages were permanent, only to find that within a comparatively short time the patient was restored to a reasonably useful life, and, occasionally, to our extreme chagrin, to perfect health.

At first we are apt to think that the patient has been thoroughly dishonest and that we have been totally bamboozled. This is not always the true explanation. The fact is that before the verdict our therapeutic measures were steadily nullified by the manifold suggestions tending to keep up the patient's invalidism, and after the verdict all of the suggestions tended in exactly the opposite direction. The moral of the whole thing is that the attitude of the physician from the first moment that he sees the patient should be such that at the last he can have a clear conscience that, at least, it was none of his

suggestions which helped to retard the patient's recovery.

This brings up the question of the physician's testimony on the trial of the case. All of the pressure of the plaintiff's attorneys, his friends and his own is brought to bear to make the attending physician take the view that the damages, real enough as they may be, are likely to prove permanent. The fact is that, just as it is the rule, to which there are comparatively few exceptions, that neurasthenics do recover and are finally able to carry on fairly useful lives, so it is true of the traumatic neuroses that no matter how great the disability at the time of the trial, the greater proportion become again capable of leading fairly useful lives. A small number remain permanently and hopelessly incapacitated. A very large proportion will retain some partial disability for many years, if not for life; but even these will be able to fill useful positions in life and extract a reasonable enjoyment from it, and a very considerable proportion of the cases can be said to make complete recoveries.

In speaking of the prognosis of nervous diseases I wish to call attention to the matter of surgical treatment of neurotic patients. We have been passing through an era of great surgical enthusiasm in the treatment of reflex neuroses. We are, all of us, familiar with the remarkable results which have been secured, in many of these cases, by surgical measures, and, yet, bright as the picture is, it has an exceedingly somber background. That background consists of blasted hopes.

From the surgical point of view the operation may have been a complete success and yet the expectations of the patient may not have been fulfilled; the cure of the nervous condition has not followed the operation; the patient is disappointed. If

this were all, both physicians and patients could learn to accept the thing philosophically. Unfortunately, however, the result of the operation is much worse than this in cases of failure. To the mind of the average layman a surgical operation looms up as a great and dangerous thing, a thing to be undertaken only as a last resort. Now, if a patient suffering from some neurosis is led to expect, either by direct promise or, more often, simply by implication, that the operation will cure the neurosis, all other things sink into insignificance in his mind in comparison to the operation. One who has had the operation done has made use of the last resource. If it fails he is apt to fall into a condition of absolute hopelessness. I do not mean that the surgeon promises to cure; he may, even, tell the patient explicitly that he cannot promise a cure, but the moral effect of the operation upon the patient remains the same; he has tried the last desperate resource and failed.

There are no patients who fall into the hands of the neurologist who tax his patience and draw upon him for moral support as do these post-operative cases. Many of these cases are entirely curable and are, finally, cured, but it takes a tremendous amount of effort and long and patient building up of the patient's confidence before such a patient can be convinced that there is still hope for him. Time and time again I have seen patients, of this sort, who were condemned to lifelong invalidism, in whom hope could not be resuscitated and who, I firmly believe, might have been restored to health had a surgical operation not been done upon them. It is well to emphasize this, for, unless a surgeon can see a very reasonable probability of cure of the neurosis from the operation, he ought to refrain from do-

ing it, if the only reason for the operation is the possible benefit to the neurosis. In other words, a surgical operation ought never to be done for the cure of a neurosis because the surgeon thinks that the operation can *possibly* do some good. He ought to have a very strong assurance that it *probably will do good*.

In this connection let me allude to one particular phase of surgery as we sometimes see it. Not a few hypochondriacal patients become convinced of the reality of some imaginary defect in this or that organ. Very commonly their attention is fastened upon the sexual apparatus. This occurs, I think, quite as often in males as in females. So strongly is the patient's attention fastened upon this distinctly localized ailment that the suggestion comes very readily to the mind of the surgeon that if a fictitious operation be done purporting to remove the imaginary difficulty the whole mental and nervous tone may be changed. Now we can none of us doubt the valuable results that very often follow upon wise suggestion upon the part of the attending physician, and it is at once evident that a surgical operation, such as I have mentioned, naturally constitutes one form, and a very powerful one, of suggestion. The temptation is very great to attempt an operation for its suggestive effect, and yet it seems to me that a strong protest should be made against such measures. First of all the difficulty with the hypochondriac is not in the locality where he imagines his ailment to be, but is far more deeply seated. It is a defect in his mental mechanism. It is a very common thing to be able to watch the process by which a hypochondriac will himself change the location and nature of his imaginary complaint, and there is no guarantee that the operation will material-

ly change the fundamental condition of the hypochondriac. An operation, for instance, upon a perfectly insignificant and harmless varicocele may, indeed, convince the patient that his sexual apparatus is all right, but within a short time he may have an equally strong conviction that he has a serious disease in his kidneys. In short, surgery of this sort cannot keep up with the varying ideas which possess his mind.

The question, however, is much wider than simply the hopelessness of these operations. If the patient finds that the operation has been done purely as a matter of suggestion, he loses confidence, not only in the surgeon who deceived him but in the medical profession as a whole, and, worst of all, the moral effect upon the community at large is thoroughly bad. All medical men are regarded with a distrust because of surgery of this sort. When we watch the prevalence of christian science, Dowieism, and quack doctors of all sorts, it is not enough that we condemn them but it is always well to examine ourselves and see whether it may not be that members of the medical profession are not educating the public into a distrust of regular medicine, grounded upon methods that are not altogether above reproach.

A few words in regard to the prognosis of an affection which always comes under the care of the general practitioner before a specialist sees it—infantile paralysis.

Here we are dealing with a disease which leaves an indelible mark behind it. It is one of the diseases which leads physicians to form the exceedingly hopeless views of the curability of nervous diseases suggested in the remarks at the opening of this paper. And yet, even in these cases, the physician who is gifted

with hopefulness and who has therefore determined to use all of the resources at command for the improvement of the patient, will succeed in attaining results which can by no means be attained on any other basis. While it is particularly true that, in this disease, certain neurons are entirely destroyed and that certain groups of muscles are badly atrophied, that a damaged member, say the leg, fails to grow as its fellow, yet it is also true that, as the child develops, even the damaged leg does grow, to a very material extent, countless thousands of new muscular fibres develop in the damaged leg with the natural process of growth. Now the hopeful physician acts upon the principle that, in a growing child, if certain nerves and muscular fibres are damaged or destroyed, other muscular fibres, with their nerve connections, may be stimulated to grow and, to some extent, at any rate, take the place of those that are destroyed; always looking forward to maintaining the greatest possible use of the leg, he carefully prevents the deformity, which will inevitably follow from the contractions of the muscles opposing those destroyed, and it is astonishing to what an extent persistent, careful and energetic treatment can succeed in preventing deformity and securing a reasonable use of the limb. Whenever I see a frightfully distorted limb, with the history that it originated from infantile paralysis, I feel that I know the man who treated the case at the outset. He was a pessimist who put his hands in his pockets, concentrated his attention upon the defective pathological changes in the cord, and failed to avail himself of the power of growth which was in the child, and which only needed to be wisely directed in order to prevent, to a considerable extent, the disastrous result.

In talking with the superintendent of one of our insane asylums, some time ago, he stated that he had never seen a case of epilepsy cured. Here again is an instance of the hopeless attitude of the medical profession or of a number of its members. As he saw epilepsy, in the insane asylum, I have no doubt that his statement was absolutely correct; but that we should all of us regard epilepsy as an incurable disease is a radical mistake. While it is true that no conscientious physician dares promise a cure, in any given case of epilepsy, yet it is equally true that a fair proportion of cases of undoubted epilepsy, and even of cases which have gone on for long periods of time, are cured and can honestly be said to be permanently cured.

Here, again, success or failure is to no small extent determined by the primary attitude of the attending physician. If the attending physician regards the disease as incurable it is natural that he should carry out the routine treatment, recommended by the text-books, saturate the patient with bromides, and go on giving bromides until the patient stinks; he will regard the progressive mental enfeeblement as the result of the epilepsy, and the inevitable result is that, after a time, the patient drifts out of the hands of the regular physician and into the practice of taking some one or other of the many well advertised specific cures for epilepsy. The whole thing is a cause of but little pride to the medical man and of little honor to the profession, and, the more particularly, because it not infrequently happens that patients, whose cases have been pronounced incurable by a regular physician, are cured, and stay cured, and attribute their recovery to some patent medicine or some quack. The man who feels that epilepsy is a curable disease is not likely to fall into the serious error of

a routine, blind and dogged use of bromides and feel that if they fail he is at the end of all his resources. He will study his case carefully, regulate the patient's entire hygienic surroundings, his mode of life, his activities, his diet, and at least be certain that the drugs he gives do not do the patient more damage than the disease itself, and he will have the satisfaction of seeing not a few unfortunates restored to happy lives.

The prognosis of locomotor ataxia is ordinarily spoken of as being practically hopeless. I think the general idea is that we are dealing with a disease which not only is incurable but which is progressive and that it is a mere question of time—and not such a very long time—before the patient will be brought to a condition of absolute helplessness. I think that the ordinary phraseology of our text-books justifies such an idea. And yet the curious fact remains that locomotor ataxia is a disease for which proper treatment is capable of accomplishing much.

It is perfectly true that once the patellar reflex is entirely lost, the ataxia distinctly developed, the patient can never be cured in the sense that he will regain his patellar reflexes or that he will be entirely free from his inco-ordination, but under a persistent treatment which is animated by a hopeful prognosis it is astonishing to what an extent even profound cases of locomotor ataxia can be so far benefitted that we can restore them to a reasonable degree of useful and comfortable life.

I remember to have been consulted, eleven years ago, by a gentleman whose locomotor ataxia had progressed to such an extent that he was, at the time, unable to attend to his business. The lightning pains from which he suffered were something atrocious; his ataxia was so pro-

found that he only got about with two canes and that with great difficulty. He had ocular symptoms, double vision; in short, according to the books, he ought to progress in no very long time to a condition of bed-ridden hopelessness. The fact of the matter is that now, in the year 1902, he is conducting a large and responsible manufacturing business of which he is the sole proprietor. The last time I met him, going to New York, he came walking through the train. He was the picture of health, was able to navigate the moving train, carried no cane. When I asked him how he was getting along he said, "I am all right." He said, "I have a blast of pain occasionally, but I have had that so long I have gotten pretty well used to it." When I tried his reflexes they were, of course, lost. Here was a man who, according to the books, should have died, and, had the prognosis been a hopeless one, eleven years ago, I think he would have died according to program.

It is a curious fact that if a medical practitioner makes a diagnosis that the patient is suffering from some form of cerebral, or particularly spinal, syphilis, if the diagnosis is made of a gumma, the practitioner has generally quite a hopeful disposition. The doctor goes at the patient vigorously with iodide of potash and such other measures as may seem wise to him, and rather expects that the man will get over his more or less pronounced brain or spinal lesion. Why we should be so hopeful in a case of organic syphilitic disease and so pessimistic when we are dealing with non-syphilitic lesions has always been a mystery to me. We are not at all surprised to see a large uterine fibroid shrink away to a very great extent. We rather expect to see the boy whose hands are covered with warts, even very large warts,

wholly lose them after a time. Various other neoplasms come and go. The fact of the matter is that the connective tissue formation which occurs in locomotor ataxia is capable of going through precisely those same atrophic changes that take place in the gunnua or in the different instances that I have named.

I am satisfied that, in not a few cases of locomotor ataxia, the original sclerotic area diminishes very markedly in size. Now if there is anything characteristic of locomotor ataxia it is this, that in the midst of the sclerosed area the conducting fibres are not destroyed until a very late period; year after year, while the sclerosis endures, the patient will suffer from the lightning pains, but the very fact that he suffers year after year shows that the fibres are still capable of sending up their impulses; otherwise he would have an anaesthesia instead of his pains.

These considerations in regard to locomotor ataxia lead directly to the question of treatment. It hardly needs to be said that if the medical man feels that the prognosis of locomotor ataxia is hopeless he will confine himself to that mode of treatment which is at the same time easiest for the physician as well as for the patient. It is so easy to give the patient anodyne drugs for his lightning pains as long as the effect of the drugs is not worn out. The inevitable next stage is that the patient begins to drift from doctor to doctor, and from doctor to quack, and from quacks to patent medicines. If, on the other hand, the physician recognizes that, in the midst of the sclerosed area, the conducting fibres are still capable of conducting, if he bears in mind the well known facts, of the regeneration of cut nerve fibres and the fact that for one nerve

cell which is fully developed and in active service there lie, all about it, numbers of undeveloped nerve cells and that these cells can and do develop and take on new functions, the possibilities of therapeutics begin to take on another aspect.

The treatment of locomotor ataxia does not consist in the use of iodides and mercurials and opiates only; in fact not a few patients are damaged more and more by the blind and dogged use of these drugs. Put a locomotor ataxia patient on a course of thorough general physical upbuilding; give him tonics, improve his digestion to the utmost point, securing the most satisfactory assimilation of food products. Surround him with the best hygienic influences and then put him on a course of carefully planned and persistently carried out, and gradually increased, muscular exercise, and it is simply remarkable to note to what an extent a shambling, uncertain and useless ataxia patient can be restored to useful, and not ungainly, control of his legs. Ataxia is by no means a hopeless condition. The gentleman I mentioned, already, so completely recovered from his ataxia that he walked through a moving train of cars without attracting any attention, and as he walked about the streets, a busy man, no ataxia could be noticed, and yet when I first saw him he got about a few steps, with the aid of two canes, with the greatest difficulty. There was no miracle about it, but the man was treated with persistency begotten of a reasonable optimism. The ataxic muscles were trained to co-ordinate movements. It is strange that this training of ataxics has not attracted more attention than it has, in view of the fact that we have long been familiar with the marked improvement, which can be brought about, in chorea, by systematic and persevering gymnastic

training. The problem in both cases is essentially similar.

I have taken up, gentlemen, a few of those forms of nervous disease which come into the care of the general practitioner; cases which the general practitioner is always called upon to treat first of all, and have tried to show, not only that very many nervous diseases are curable, but it has been my desire to emphasize, above all, the fact that the curability of the case depends in very large measure upon the mental attitude of the attending physician. For good or evil the patient's career is largely determined by our own attitude towards him. If we accept the hopeless view we, to no small extent, doom the patient to a damaged, defective, miserable life. If, on the other hand, we feel that the nervous system is but a part of the whole organism and that, like all other parts of the human organism, it is endowed with a power of adjustment to changed environment and that, consequently, even though damaged, it can readjust itself and carry on its functions in a useful way, we will be to our patients a blessing, and the practice of medicine will be to us a constant satisfaction.

DISCUSSION.

W. J. HERDMAN, ANN ARBOR.

I regard the subject of this paper as exceedingly timely, and I am very glad it was read in the section on general medicine, because I think that such sentiment is more needed by the general practitioner than by the neurologist, although the doctor has quoted some neurologist as having given a pessimistic opinion.

A large share of nervous disorders are those of functional derangement. Now an optimistic opinion with regard to the curability of these functional derangements usually creates an optimistic impression of methods of treatment; and my own experience corresponds with that of the doctor, that in the majority of these cases,

rightly studied, rightly dealt with, they are curable. The curable element, however, or the line of cure, is largely that of suggestion, and the attitude that the physician bears to his patient; if he has a spirit of hopefulness it is bred in the patient, and the attitude of mind with reference to these functional disorders is very important in effecting a cure.

The only thought that I wish to add to this pessimistic conception of the incurability of nervous disorders for the benefit of the general practitioner is this: those cases that cannot be cured are those of derangement of an organic character, changes in structure, which come to the neurologist oftentimes, because they have been too long in the hands of the general practitioner before they reach the neurologist. The neurologist is constantly endeavoring to show the early symptoms that induce organic changes in the spinal cord, and in the brain, which, when they reach him in that state, are incurable. The only thing he can do then is to make the patient's condition as comfortable as possible. Now if those conditions are recognized early enough, they also are curable. One of the most unsatisfactory forms of spinal disorder, which results in permanent disability, and oftentimes long life, along with that disability, is primary lateral sclerosis. It has been my fortune in the last three or four years to find several cases of primary lateral sclerosis in their early stages. They have been cured, but they are not the disorders which, as a rule, produce any great amount of discomfort, and in the hands of the general practitioner, not having sufficient experience in that line, are looked upon as rheumatic disorders, in the early stages, until they become settled in the secondary stages, when organic changes occur, and then it is exceedingly difficult to do anything, and when they reach the tertiary stage it is impossible to do anything; and yet those cases last with a fair degree of health 20 or 30 years. I have found in the primary stages they are curable. Now the thing for us all to learn from this paper, I think, that is most important to us, is to recognize the tendencies in their early stages and then get the benefit of the specialist upon methods of cure in those stages. If that is done I think we can get a much more optimistic view, even in that class.

But as regards the functional disorders, if we have lost hope in the possibility of curing them, our methods of research and methods of treatment will never be approved. But I fully believe that these cases of epilepsy, hysteria and neurasthenia are curable in the majority of cases.

DAVID INGLIS, DETROIT.

I am glad that Dr. Herdman brought out the matter he did about primary lateral sclerosis.

If I can impress upon general practitioners who see cases of infantile spinal paralysis the same idea which Dr. Herdman emphasized in regard to primary lateral sclerosis, it may be of some benefit to many a child.

We see these unfortunate children growing up frightfully deformed. Whenever I meet a case of great deformity, the result of an infantile paralysis, I feel as if I personally knew the doctor who attended the child in the beginning.

The doctor was probably a man who said, "This is one of those hopeless diseases of the nervous system." He was a man who had the idea that nervous diseases are incurable, who, believing that nothing could be done, put his hands in his pockets and did nothing. Now the fact is, that if the man who takes charge of the case at the beginning has some hopefulness about him, if he remembers that the spinal cord of that child is bound to grow just as the child grows, that countless new cells in his spinal cord are going to develop and take up their activities—if, remembering these undeniable facts, he will go ahead and treat a case of infantile paralysis, not for a few weeks, not as a matter of form, but energetically, with a dogged persistence which keeps up with the growth of the child, I believe that the great majority of these cases of infantile paralysis could be drilled and trained and made to grow so that they would be spared from the wretched deformity. There is nothing that pains me more than the pessimism of doctors who let a case of infantile paralysis come to that result.

I am exceedingly glad that Dr. Herdman felt that I had told the truth as he saw it, that we have a right to be optimistic, and that when we are not optimistic we do the patient an irretrievable damage.

Owing to the rapid changes made in the membership of the State Society, the names of some of the new members may have been unintentionally omitted. If any member has not received his JOURNAL, the editor will be pleased to have his attention drawn to the omission.

The first meeting of the surgical section of the Wayne County Medical Society was held on the evening of November 3.

THE VALUE OF PLASTER CASTS
FOR ACCURATE CASE RECORDS
AND AS AIDS IN THE TEACH-
ING OF THE DIFFERENTIAL
DIAGNOSIS OF ABDOMINAL
TUMORS. WITH DEMONSTRA-
TIONS.

REUBEN PETERSON,
Ann Arbor.

I would like briefly to call the attention of the members of the Section to some work which has been carried on during the past year in the gynecologic clinic of the University of Michigan Hospital. I refer to the taking of plaster casts of abdominal tumors and other pathologic conditions with a view of their use in the teaching of differential diagnosis and their preservation as accurate records of cases. While experience has given rise to not a few changes in the technique of the cast making, these two ideas, responsible for the undertaking of the work, have never been lost sight of.

No matter how good may be the verbal or written description of the limits, shape and contour of an abdominal growth, it can never be so realistic or so accurate as a plaster cast of the same tumor. The cast, moreover, is an imperishable, true reproduction of certain gross characteristics of the tumor, in such a shape that it can be made use of by another observer, perhaps for different purposes, years after it has been made.

For teaching purposes I have found such a cast invaluable. As an illustration, allow me to mention an incident that occurred while trying to have a class arrive at a diagnosis of a certain abdominal swelling. I asked the student why such a swelling could not be caused by an ovarian cyst. His reply was that an ovarian cyst would be at one side of the abdomen while

this growth was central and symmetrical. Instead of asking him to try to remember that after a certain period in its growth an ovarian cyst was apt to be central in position, I sent for the cast of such a tumor, which had been operated upon before the class, and had been proved to be ovarian and demonstrated the central position of the growth.

At first the mistake was made of making the casts too small, including only the tumor area. As more skill was acquired the area of the cast was increased until now the bony landmarks above, below and at the sides are all included.

Only the exceptional patient will object to having the cast made. This statement refers to private as well as hospital cases. Some of the most interesting and instructive casts have been from patients in private practice.

There is no pain connected with the process of taking the cast, even where the tumor is quite sensitive to the touch.

The technique of the process is quite simple. The finest dental plaster should be used. Coarser varieties will be found very unsatisfactory. The part should be carefully shaved and covered with a layer of sweet oil to prevent the plaster from adhering. The plaster should be mixed in cold water, the quantity of the latter depending upon the amount of plaster needed. The ordinary bread pan will be found convenient for the mixing. The plaster is poured into the center of the water, the mixing being done very gently and lightly with the hand, not a spoon. As soon as a cup full of plaster is mixed in this way another cupful is poured into the center of the water and so on until all is the consistency of thick syrup and is ready to be poured upon the surface to be taken. The plaster can be confined to any desired

area by a devise suggested by Dr. D. M. Cowie, a simple bicycle tire filled with shot. The weight of the shot causes the tube to hug the skin closely and allows of its being easily held in place. The plaster is poured into the area enclosed by the loaded tire until it rises to its top. As the plaster runs in, any bubbles should be pressed out with the fingers. The plaster hardens quickly, and after a little practice the cast can be removed without breaking, and the negative is made. It only remains to grease this negative, using butter instead of oil, and from it the positive may be taken. It is best to allow the cast to set for twenty-four hours before trying to separate the negative and positive. It is usually necessary to destroy the former in order that the latter may be removed intact.

I have brought with me a number of casts for the purpose of illustration. Here are three casts of cases of uterine fibroids, all of which have been subjected to hysterectomy. They represent different stages of growth, from the first appearance above the pubes until it reaches above the umbilicus.

Here is the cast of a procidentia in a woman who was between four and five months pregnant. Here is another case of procidentia in an unimpregnated uterus. It needs no further words from me to convince you that these casts are far better than any description could hope to be.

Here also are casts representing different stages of the pregnant abdomen. While they do not take the place of the living woman whose abdomen the student is taught to palpate, they are of great value in teaching.

I have also had paper maché models made of certain of the casts with a view of making them lighter. Up to the pres-

ent time, however, the lightness is the only advantage as they are far uglier and much less attractive than the plaster casts.

"SEQUELAE OF OPHTHALMIA NEONATORUM."

DON M. CAMPBELL,
Detroit.

The following clinical reports are made to this Section because in the writer's experience they embody some unusual pathologic results of a disease which is at once one of vast importance to the medical profession and also to the state.

The surgical procedure resorted to for the correction of the resulting deformities present also, in the writer's opinion, some points of more than passing interest.

Ophthalmia Neonatorum is, it has been estimated, responsible for the presence in the blind asylums of this country of about one-third of all who occupy these eleemosynary institutions, which aggregate is a considerable burden upon the taxpayers of the state from a financial standpoint, to say nothing of the loss of many individuals who otherwise would be useful and more or less ornamental members of society.

In not a few states of the Union legislatures have taken cognizance of the importance of the situation and made it a misdemeanor, punishable by imprisonment or a fine, for any nurse or midwife in attendance upon such a case to fail to report the same to a medical man.

Michigan has not, as far as I am aware, enrolled herself in this list of progressive commonwealths. Undoubtedly it needs only the backing of such an institution as the Michigan State Medical Society to receive favorable consideration at the hands of the proper authorities.

Under modern, rational and radical methods of treatment, almost all cases of Ophthalmia Neonatorum—please note that I say almost all cases—whether of gonorrhœal or other origin, will make a perfectly complete and uninterrupted recovery, no complication supervening and no sequelae following.

The following two cases under these circumstances seem worthy of report and record:

CASE 1. Ophthalmia Neonatorum—followed by total entropion of right upper lid—Operation—cure. The patient, a baby of three months, well nourished and growing satisfactorily, was brought to me in November, 1899, with the history of having run through a severe attack of Ophthalmia Neonatorum, one eye recovering completely and the original disease in the other also responding satisfactorily to treatment. When, however, the purulent conjunctivitis had subsided it was found that there was an almost complete entropion of the right upper lid. Upon examination the lid border was found to be completely inverted and the whole row of lashes was seen to be scraping with each movement of the lid upon the cornea, thereby producing considerable irritation, redness, lachrymation and discharge.

The following interesting pathologic condition was found: The skin surface of the lid showed a scar where an ineffectual attempt had been made to remedy the defect by excising an elliptical piece of skin and closing the wound with sutures. Upon everting the lid a firm adhesion of the fornix conjunctiva to the palpebral conjunctiva as far forward as the free border of the lid was found and it was evidently from the traction of this adhesion that the lid was being inverted and made to assume its abnormal position.

The following surgical procedure was instituted for the relief of the abnormality, which of course if left to itself would eventuate in the loss of the eye.

Under chloroform anaesthesia and after proper aseptic cleansing, the conjunctival adhesion was carefully freed and completely dissected up. The lid was then allowed to assume its normal position and a Hotz's Anagnostakis Entropion operation was done, the procedure being as follows: An incision was made through the skin parallel to and a little below the upper border of the tarsal plate from one canthus to the other. The flap was dissected up as far as the free border of the lid. Then with three sutures the upper border of the skin flap was sewed firmly to the upper border of the tarsal plate, the sutures being brought out in such a way as, when tied, to ensure the complete closure of the operative field.

The third and last step in the procedure consisted in the transplantation of a mucous membrane flap from the lip of the father to the raw surface left by the dissection of the conjunctival adhesion. The mucous membrane flap "took," the healing of the skin wound was by primary union and the result eminently satisfactory, the lashes assuming their normal position.

This case was briefly reprinted in the *American Journal of Ophthalmology*.

CASE 2. Ophthalmia Neonatorum—Perforating Corneal Ulcer—Secondary Glaucoma—Buphthalmos—Mules' Operation—Recovery.

In June of 1901 this child, then twelve days old, was placed under my care.

A careful examination showed a violent purulent conjunctivitis, and the right cornea the seat of an extensive infected ulcer, more than one-half the corneal surface being already involved.

The purulent conjunctivitis went on to recovery in about the normal way, but the corneal ulcer perforated Descemet's membrane and the interior of the eye became infected.

However, instead of going on to panophthalmitis and subsequent atrophy, as one would naturally expect, the infection became limited, the corneal perforation healed, with prolapsed iris and obliterated infiltration angle.

Secondary glaucoma supervened and the eye gradually distended until it was fully three times the size of its fellow, which meantime had made a perfect recovery.

The deformity of this extremely large and constantly distending eye was very great and demanded immediate surgical relief.

Should enucleation, simple evisceration or Mules' operation be performed?

The first was rejected because of the arrested development which such a procedure in one so young would be sure to induce.

Simple evisceration was rejected because it is but little better than enucleation.

A Mules' operation was decided upon as offering the best cosmetic result and at the same time interfering the least of any with the growth of the orbit and side of the face.

The cornea was ablated, the contents of the globe carefully removed and into the scleral cup a silver sphere of suitable size was introduced.

Six sutures were passed through the sclera and four through the conjunctiva. There was practically no reaction, the healing was prompt, uninterrupted, and the child now has a large movable stump,

on which he has for six months worn an artificial eye.

The result from a cosmetic and surgical standpoint is particularly good and there is practically no secretion in the orbit.

I wish to call particular attention to the extremely young age of this patient at the time the Mules' operation was performed. The child was four and one-half months old when the Mules' operation was done.

In this connection I wish to report in some detail another case which, while not one of Ophthalmia Neonatorum, is one of the same disease occurring in an adult:

CASE 3. Mrs. K., aet. forty. Gonorrhœal Ophthalmia—Trachoma—Entropion of lower lid. Infiltration—Anaesthesia—Operation—Recovery.

This patient was admitted to my service at Harper Hospital and presented all the classical signs of a violent purulent conjunctivitis. Bacteriologic examination of the discharge showed abundant gonococci present, making the diagnosis of the original infection, which had taken place only a few days previously, very clear.

Under appropriate treatment the violence of the gonorrhœal infection subsided without any corneal complication supervening.

Instead, however, of going on to resolution in the usual way, the palpebral conjunctiva passed into a condition clinically identical with and indistinguishable from trachoma, which observation would tend to confirm the opinion which has been advanced by some that trachoma is a modified gonorrhœal infection.

Another interesting feature of this case was the occurrence some months later of a complete entropion of each lower lid, which also strengthens the identity of the two diseases.

The entropion was relieved by surgical means, the operation being done upon each lower lid under the Schleich infiltration anaesthesia without any pain either in the removal of the skin flaps or in the introduction of the necessary sutures.

The healing was by primary union and the result good.

DISCUSSION.

R. W. GILLMAN, DETROIT.

The first case reported by Dr. Campbell is certainly a very rare one. The sequela of a lid trouble, entropion, or turning in of the lid, is most infrequent. In ten or twelve years of practice I do not remember meeting such a case. The danger of an inflammation of this character is to the eyeball itself, and the result is peculiarly serious, as it involves the very delicate structures of the cornea, which are apt to become sloughed or opaque; and, as the doctor remarked—I cannot tell you the exact number—a large percentage of blindness in this world is caused by purulent ophthalmia. It is sad, indeed, to think of how many of these cases could have been prevented by early recognition and prompt treatment. I am sure no one could meet such cases and not become impressed by the want of attention they receive in the early stages. The usual result, as I have said, is some affection of the cornea. A short time ago I enucleated the eyeball of a young child of two years of age, whom I first saw when only four or five days old, suffering from ophthalmia neonatorum; and in that time the cornea had completely sloughed. When I saw the case two years afterwards, the cornea, or rather, the eye, had bulged forward. I enucleated the eyeball, and in its place I inserted a piece of sponge, with excellent results, it forming a nice stump for the artificial eye. What I wish to bring forward and emphasize is the great importance of the early recognition by the general practitioner of ophthalmia neonatorum. By its receiving the proper treatment, as Dr. Campbell says, nearly all these cases of blindness can be prevented.

F. A. ROLLER, GRAND RAPIDS.

This paper of the doctor's brings out a very important subject that we all feel like discussing, and I wish to go back a little further than Dr. Gillman, and say a word in regard to the prevention of this disease in the hands of the general practitioner.

I believe, with a proper disinfection of the vaginal canal, before and during delivery, that many of these cases can be prevented; further, that the general practitioner should, if he has any reason to suspect that the patient has a gonorrheal or any other discharge, use a solution of nitrate of silver, one or two drops, five grains to the ounce, in the infant's eyes. The sequelæ that we usually get from this disease are ulceration of the cornea, followed with leucoma and sometimes staphyloma; I never saw a case of entropion following the disease, but I have seen several cases of ulceration, followed afterwards by leucoma or staphyloma.

I believe the Mules' operation is a very good one, though I have never performed it in a child of the age the doctor mentions.

It seems to me by the introduction of a sphere of some kind the parts are in a better condition to grow and develop, and that the orbit can attain more its natural size; as the child grows those parts will grow more when the orbit is filled in with something that holds those parts in place. I believe the Mules' operation is a very good one, and I think if I find occasion to do the operation in the future I will try the method the doctor has mentioned.

JAS. A. KING, MANISTEE.

In introduction I may say that I think the author of the paper was mistaken in the statement that we have no law requiring the calling of a doctor in a case of midwifery practice where a purulent discharge occurs. I think there is such a law.

In regard to a doctor who does not know an ophthalmia neonatorum when he sees it; if he has studied medicine and graduated, and does not know a disease so easily diagnosed as that, there is no excuse for him. He ought to know it; it is plain enough so that any man ought to recognize it if he never saw a case before. There are some things a man should know when he gets through college, and that is one of them.

If you give your patient a good thorough vaginal douching before labor you may prevent some cases, but unless you keep your irrigation going all the time, I think you would be more likely to fail.

C. L. BARBER, LANSING.

I want to say a word as a general practitioner, as they seemed to be blamed for these cases when they reach the specialist, yet no specialist has told us how to prevent these cases coming to him. I do not believe that the irrigation of

the mother's vagina is going to keep the baby from having sore eyes. There is no doubt but that the sore eyes come from infection of some kind. My method in attending cases of confinement and in preventing cases of this kind is in the care of the baby after it is born. It is all right, if you suspect gonorrhea or any other disease of the vagina, to irrigate it, but I do not think that is sufficient; I think these cases can be prevented ninety-nine times out of a hundred even if you do have infection. My method of preventing it is this: If you have a trained nurse who knows how to wash out the baby's eyes, after it has been given the general bath and dressing, with a sterile solution of salt (normal salt solution), she can do it and do it thoroughly in these cases, and I do not think you will have any trouble with the baby having sore eyes. If you have not an experienced nurse I think it is the physician's duty, before he leaves the little patient, to take a clean cup of sterile water and put in salt enough to make it the strength of a normal salt solution, as you would fix it in a surgical solution; put a little piece of sterile absorbent cotton in the water and wash the baby's eyes out before the nurse, so that you know that not only the inside but the outside of the baby's eyes are washed; then if the nurse who is taking care of the baby afterwards has a thimbleful of sense she will know what to do, and the specialists will never have one of these cases to treat.

DON M. CAMPBELL, DETROIT.

I have very little to say in closing the discussion excepting this, that it is possible to prevent ophthalmia neonatorum from advancing as Dr. Barber has outlined it, and in these cases that become infected, or are likely to become infected in spite of such a cleansing, the infection taking place in the parturient canal, the employment of what is known as the Credé method for the prevention of ophthalmia neonatorum will prevent almost all cases; by that method it has been found in obstetrical institutions that the percentage of ophthalmia neonatorum has been reduced from ten or fifteen per cent. down to one-tenth of one per cent. of all births in those institutions. That method consists of simply dropping two or three drops of a two per cent. nitrate of silver solution into the infant's eyes shortly after birth. In the suspected cases that would be the proper thing for the attending physician to do, not only to take care of the parturient canal, and thoroughly cleanse the eyes, but also to drop into the baby's

eyes two or three drops of a two per cent. solution of nitrate of silver. Just one application is sufficient. The transplantation of a sponge into the orbital cavity after enucleation is a procedure that has been more or less tried; it is open to some objections. It is hard to thoroughly sterilize a sponge. Being an organic substance, it is finally, in the course of time, absorbed, leaving the result much the same as after a simple enucleation.

The feasibility of the Mules' operation in a child as young as this one presents no different problems from a grown person. Instead of removing the whole eyeball, the cornea and contents of the eyeball are removed, as in evisceration, and into the scleral cup an artificial vitreous is introduced. Something is left in the orbital cavity which nature has to nourish, and therefore brings the requisite amount of blood to the part in order to nourish that which is left and to develop the orbit and the side of the face. The age of this infant, I think, perhaps is a matter of record; I do not remember of reading of one so young, but the result was good; the reaction was not more than after an ordinary enucleation, the cosmetic result is almost perfect, there is no sinking of the parts around the orbit, as is seen so often in artificial eyes introduced in the orbits without an artificial stump of some kind, and the movement is also very good.

As to the kind of material that should be used in Mules' operations, Mules himself, some fourteen or fifteen years ago, first did the operation and used glass spheres; these were very satisfactory, but some of them, I believe, were broken subsequently, so that a metal sphere was introduced; the next one to be used was of silver, and it was during the time when silver was being used that I did this operation on the little baby. If I had to do it again I would use a gold ball, the objection to the silver being that in the course of time it oxidizes and is likely to stain the tissues, whereas gold will not do that.

THE TREATMENT OF TYPHOID FEVER.

GEORGE DUFFIELD,
Detroit.

The subject that I present to you to-day is not a new one by name, it is one we are all well acquainted with; it is one that we will all have to treat before the winter comes, and so I feel justified in presenting

my views on the treatment of typhoid, both dietetic and medicinal, and I hope to give you a brief outline that will prove of benefit to all general practitioners.

About eight years ago a paper on this subject, which I read at Mt. Clemens, created considerable discussion. Then the subject was discussed from the view that the late Dr. Woodbridge advanced, namely, "that intestinal antiseptics was essential in the cure of typhoid fever." My opponents were those who recommended the Brand method of treatment, with cold plunge baths, etc. At that time we each went our separate ways, but it is needless to say that the writer did not adopt the Brand method, because he had found that the intestine could be made almost antiseptic, and cases treated on these lines went on to recovery without suffering relapse or serious complication, as is frequently the case with other methods.

A typhoid fever patient as a matter of course should be kept in bed throughout the whole course of the disease, and the convalescence.

A competent nurse should attend the patient, and the nursing should not be divided among half a dozen of a family. The sick room should be large, well ventilated, and quiet, and as far removed from the kitchen as possible. The nursing should not be done by those of a family who prepare food for the other members, for the ease with which the disease is carried makes it very necessary to avoid all possible chances of spreading.

The patient should be kept cool and the room should be freely and frequently aired. Cleanliness of the patient is to be especially desired. Besides a daily sponge bath, the areas around the anus, the perineal and sacral regions should be thoroughly washed with an antiseptic solution

after a movement. Soiled linen should be removed and treated with antiseptics. The urine as well as the stools should be thoroughly disinfected with 1 to 2000 bi-chloride solution before being thrown into the closet.

The mouth should be frequently cleansed.

Infected food may be a source of continued infection.

The water supply may be infected, and its continued use would act to increase the infection.

The milk supply may be a source of the contagion and the foods formed from it, such as butter, cheese and whey may contain poisons. Fruits that have been exposed to the odors of sewerage are also frequent carriers of typhoid bacilli.

For many years the one symptom above all others that has had all attention has been *the fever*. The high rise of body temperature was looked upon as the most weakening of all pathological changes, and so all efforts were made to reduce the temperature. Many practitioners are still of the opinion that the fever is the one symptom that needs their personal attention, and so all their efforts and all antipyritics are turned to its reduction.

The present treatment of typhoid should be directed toward rendering the effects of the toxins less toxic, and as far as possible innocuous.

This is in a nutshell the plan that I have adopted in the care of my cases.

Osler in his practice says: "Very laudable endeavors have been made in many quarters to introduce methods of treatment directed toward the destruction of the typhoid bacilli or the toxic agents which they produce, but so far without success." Again he says:

"Based on the erroneous view that the bacterial growth is chiefly in the intestine itself, Thistle and others have advocated and attempted elimination by thorough evacuation of the bowels and the giving of intestinal antiseptics."

Our eminent colleague is not in favor of the plan, believing as he does that the intestine is not the primary seat for the development of the typhoid bacilli.

Personally, I believe he is wrong in his theory.

Intestinal antiseptics has been condemned by some of the leading men in our State University, and throughout the United States as impracticable and next to impossible. Many authorities believe that such a treatment has not a rational basis, and so do not advise it. But in the body in health, the intestines are aseptic because of Nature's antiseptic, the bile, and if aseptic conditions exist normally, we have reason to believe that we can restore the condition.

We have not a specific treatment of typhoid fever yet. No method has been discovered whereby the existing cause, the typhoid bacillus and its toxins, may be destroyed, thus preventing its dissemination throughout the whole system.

But in the light of modern research in ætiologic and bacteriologic methods our conceptions regarding the nature and mechanism of the infectious processes are changing; we learn that the fever is an expression of the action of the typhoid toxins upon the tissues.

So our treatment, instituted as early as possible, should be to lessen the intoxication of fast-forming poisons. We must treat a group of symptoms rather than a single symptom, and we must anticipate others. By waiting the temperature rises higher and higher each day, and the in-

toxication may be marked even with temperatures that are comparatively low.

Early symptoms of intoxication are: Severe headache, restlessness, sleeplessness or the reverse, vertigo, and drowsiness, nausea and vomiting, with loss of appetite and a tongue heavily coated in the center, diarrhoea and frequent stools, or constipation. Diarrhoea is a variable symptom, occurring in only about 10 or 15 per cent. of cases. It is more common toward the end of the first week.

Osler reports that on several occasions, where constipation existed and the colon was filled with solid faeces, that extensive infiltration and ulceration of the Peyer's glands of the small intestine existed, as was noted at the autopsy (p. 230, Osler's Practice).

What is this but bacteriological intoxication resulting from absorption of the toxins in the intestinal tube?

Bacteriological infection is to-day beyond question the cause of typhoid fever. The Eberth bacillus is the principal cause, though the proof is not quite as strong as that the tubercle bacillus is the cause of tuberculosis; and typhoid fever never originates except through the action of this germ.

But the bacilli of the intestine must not be overlooked; the bacillus coli communis is capable of producing a fatal degree of toxæmia. This bacillus is the organism most often isolated when bacteriological examinations of drinking water are made, and its presence is undeniable evidence that there is sewage pollution, so that in many cases we have a double infection, the primary one the colon bacilli and the secondary one Eberth bacillus. To these must be added the bacteria that are always present.

For a number of years, when first called to a patient suffering with all the symptoms of typhoid, provided the case has not been more than ten days sick, I give calomel in a few five-grain doses with five grains of Sodii Bicarbonate, depending upon the condition of tongue. This plan is not new. This medicine not only asserts a purgative effect, but shows a marked anti-toxic action upon the intestine, but to get good effects it should be given early. Liebermeister recommends five grains at intervals of two or three or four hours for the first twenty-four hours. This form of medication clears the intestine from fermentative masses, and may be followed with a saline, if not effective.

Believing that the bowels should be kept as aseptic as possible, I have found that pure guaiacol accomplishes this condition better than any other remedy. The dose is usually five minims every three or four hours, given in capsule. I have often noticed a special antipyretic effect when the medicine is given internally. I give it for its antiseptic properties primarily, and I am sure that I accomplish the desired purpose, for the stools and urine are redolent with the characteristic odor, showing that the medicine must have passed the diseased surfaces as guaiacol and rendered the parts aseptic by its presence. Some stomachs are irritated with pure guaiacol and the drug cannot be administered. When such cases are met, recourse may be had to the carbonate, which is no doubt the next best antiseptic. This may be given in doses of from five to ten grains every three or four hours.

Less importance is attached to-day to the direct control of the body temperature than formerly, for the reasons I have mentioned, yet when the temperature persists at 104° or more, as it does at the end of

the first week or ten days, it is necessary to reduce it promptly, and so conserve the strength of the individual and lessen the tendencies to serious complications.

Prolonged high temperature, when it remains above 104° for four or six days, may be attended with serious complications. The quickened pulse and respiration tend to cardiac weakness, or some pneumonic condition, the increased oxidation promotes disintegration of tissues and emaciation, and loss of strength follows rapidly, and the typhoid bacillus are disseminated into distant organs. So to check this prolonged and septicemic condition, cold baths or cold sponging are often employed, but their action is often slow and not lasting, and do not in any way remove the cause of the fever.

For a number of years the local application of pure guaiacol has taken the place of baths with me. My attention was first called to this method of employment when reading the second edition of "Shoemaker's Materia Medica and Therapeutics," page 376, where it says: "Guaiacol is readily absorbed by the skin. It has been found that a local application has the power of reducing febrile temperature." In looking up the subject I found that Scidla of Genova (*Cron. d. clin. med.*, 1892-1893, pages 171-176, *Semaine Medical*, 1893, No. xxi), first pointed out "that pure guaiacol acted as a powerful antipyretic in doses of two to ten grammes when painted on skin of back, limbs and abdomen. In these large doses it was noticed in the urine one-half hour after it had been applied, and the patient tasted the remedy in fifteen minutes. When the pure drug is applied it never produces any inflammatory conditions."

Before the application is made the pa-

tient should be placed between woolen blankets.

The point to be selected for the application is well worthy a moment's thought. I believe the best place is over the ileocecal valve, over the seat of the disease. The part to receive the application is first washed thoroughly with soap and warm water, then with alcohol. The guaiacol is painted over an area of five or six square inches, or better, five to five minims are dropped upon the skin and gently rubbed in by the attendant for ten minutes, and then the place is covered with cotton wadding and oiled silk.

Reaction being in ten or fifteen minutes after the application, the patient breaks out with profuse perspiration, and when the dose has not been large, five to twenty minims, rarely is there marked depression. The temperature continues to descend for three or four hours. The pulse grows full and strong, and it rapidly lessens in proportion to the reduction of the temperature; the patient shows no signs of cyanosis, and invariably says he feels strong.

It must be remembered that the effect of guaiacol is the same as of other coal tar products, only it is more powerful, and great care must be exercised in its use. The fall of temperature is due to an effect upon the heat center in the brain, produced reflexly through the peripheral nerve terminations, and to a slight degree to the inhalation of the vapor of the drug. Profuse sweating follows. Sometimes one-half to one ounce of whisky or a cup of sweetened clear coffee prevents a feeling of weakness and may be given during the application. The reduction of temperature by this method is not attended by marked cardiac weakness. I try to reduce the temperature to 100° or 101°,

rather than to have it fall to or below normal, for when reduced to normal or below a chill frequently results.

As an antiseptic to the urine, the guaiacol, when administered, must have a beneficial and an antiseptic action, though I have never had a bacteriological test made of the urine.

One thing we as physicians must constantly bear in mind is that the disease is a protracted one. We must anticipate a large amount of loss of weight, and we must therefore study our individual cases and supply to them, as far as it is possible, a nourishing diet, in liquid form, that is easily assimilated and contains fats, carbohydrates, gelatinous substances and proteids. The secret of success is to give small amounts frequently, at intervals of two or three hours.

The diet of typhoid should be that which is easy of digestion by the stomach, without leaving a residue that will act as an irritant and remain unabsorbed in the intestines, and so increase the amount of faeces.

The digestive secretions of the alimentary canal are greatly reduced and perverted, and for this reason it is impossible to secure complete digestion of food, as in health.

Most authorities advise the use of milk as the main article of diet. Theoretically, it appears to be the most rational form of nourishment for fever patients, as it represents the ideal combination of proteid, carbohydrates with fats and salts in convenient solution; the proteids of cows' milk consist of casein, lactalbumin, nucleins and globelins; the casein is four or five times greater in cows' milk than that which the infant gets at its mother's breast; there is six times as much lime salt and three times the amount of acids, and

the acids, together with the milk curdling ferment of the gastric juice, are responsible for the curds that follow the injeſta of milk.

The medical profeſſion naturally aſſumes that milk is a fluid and readily aſſimilated by the ſtomach, leaving little reſidue, but I affirm that milk is only a fluid outside the body. In the ſtomach it becomes coagulated into curds, which are ſolid or ſemi-ſolid. Theſe paſs into the in-teſtine to act as a culture medium for the typhoid and in-teſtinal bacilli, ſo forming an irritant of a ſerious nature, and later will produce frequent pultaceous ſtools; the ſymptoms of ſuch indigeſtion being a ſenſe of fullneſs or weight in the epi-gaſtric region, and more or leſs diſtenſion of the bowels with gas. Where tympanitis mani-feſts itſelf, when the diſeaſe is in the ſecond week, a time when it is moſt liable to occur, it is a ſerious ſymptom. Often the gaeous diſtenſion is due to a paralysis of the muſcular wall of the in-teſtine, brought about by the general infection, the reſult of the abſorption of the toxines; to this cauſe muſt be added the fermentation of food ſtuffs, milk eſpecially acting to in-creaſe the fermentation proceſſes, and the formation of gas. Frequently, where conſiderable meteoriſm exiſts, perſiſtent diarrhoea accompanies the condition and is proof poſitive in my mind to be due to in-teſtinal indigeſtion, produced by the un-digeſted milk.

Milk curds from the in-teſtines, taken from the ſtools, on poſt-mortem examinations have been demonſtrated to contain ſwarms of bacteria which are productive of fermentation, and continuous auto-intoxication is the reſult. The fever riſes higher and higher as the re-abſorption takes place, and the lymphatic glands and other organs of the body ſuffer from the

infection, and as the diſeaſed germs are abſorbed and appear in the other organs and diſtant glands, we have what might be well called a typhoid ſepticæmia. An excluſive milk diet produces conſtipation, and this condition locks up the bowels, ſo adding a ſerious condition to the already exiſting diſorder. So I ſay regarding milk and milk foods, cut them out.

Sterilization of milk leſſens the tendency of the curd formation, makes them leſs tough, but at the ſame time chemical changes are produced by the boiling which cauſes a loſs of certain neceſſary nutritious elements of the milk, thus leſſening its power for good in the animal economy. The fats are partially decompoſed, favoring butyric acid fermentation. Feeding with ſterilized milk is productive of ſerious and detrimental tiſſue change. In infants rhachitis and ſcurvy follow its uſe. So, in adults, there is a marked loſs of weight when it is uſed and greater emaciation.

Having taken away milk and milk foods, what ſhall we offer as a ſubſtitute for milk diet?

Fiſt, let me again emphasize the fact that the digeſtive ſecretions of the typhoid patient are deficient in quantity and quality, both as to their organic conſtituents and digeſtive ferments, upon which depend their eſſectivenesſ.

Bile, the natural antiſeptic of the in-teſtines, is withheld, hence that part of the digeſtion that is carried on in the in-teſtine is greatly weakened.

So, keeping one thing in mind, namely, *in-teſtinal reſt*, we muſt, ſo far as poſſible, give foods that are digeſted completely in the ſtomach, and leave little reſidue to be paſſed into the diſeaſed and irritable in-teſtine.

First, sterile water, drunk in large quantities, acts as a food and an eliminator, both by the skin and the kidneys, for the typhoid germ is given off in the kidneys in large quantities, like the faeces, and both need diluting. A sub-normal temperature can usually be avoided by judicious feeding.

Beef peptinoids and panopepton, beef juice and beef extracts and strained animal broths, Mellin's and Nestle's Foods, act well as substitutes. Sweetened clear coffee or tea is highly nutritious and often aids in sustaining the patient's strength, even better than alcoholic beverages.

As the fever abates, a carefully selected soft diet promotes an early and speedy convalescence; broths may be thickened with rice or pearl barley; then calf's foot jelly, blanc mange and cream, soft boiled eggs, creamed toast. Sometimes a digestive ferment may aid the more complete digestion of the food and relieve dyspeptic symptoms.

Following this plan of feeding, patients go through their sickness feeling pretty well, are able to turn over in bed and aid themselves throughout. There is practically no constipation—no tympanites, and a fever that is not excessively high, the loss of flesh is not excessive and the tonic-ity of muscle is conserved by this plan of dietic treatment, coupled with the medicinal, above described. Delirium has been almost unknown, and other complications are rare. Relapses have been very infrequent.

Dr. Geo. Dock, of Ann Arbor, on October 14, 1902, read, by invitation, before the Buffalo Academy of Medicine, a paper entitled "Jenner's Works and Their Value in the Modern Study of Small-Pox."

ANEURISM OF THE INNOMINATE ARTERY.

Report of a Case Successfully Operated.

LOUIS J. HIRSCHMAN,
Detroit.

The extreme rarity of the condition, herewith noted, and the more infrequent instances of recovery after operative interference, suggested to me the possibility that the report of a case successfully operated might interest the Society. I say the condition is extremely rare; I might, perhaps, more properly say that while aneurism of the innominate artery is far from being a common form of aneurism, its *recognition* is extremely rare.

I am informed that in Vienna two cases of innominate aneurism were discovered in a series of eight thousand autopsies, and in neither of these cases had the diagnosis been made before death.

Too often patients who complain of pain in or near the region of a joint are told that they are suffering from a slight attack of rheumatism or neuralgia, and careless practitioners prescribe for those conditions when far more serious trouble may be present.

If physicians in general would not take so many of their patients' descriptions of their symptoms for granted and would pay a little more attention to physical examination of the parts complained of, then we would have more early diagnosis of aneurism and fewer fatal cases of so-called rheumatism.

The report of a rare case of any kind is of interest to the practitioner of medicine, not merely because it is a medical or surgical curiosity, but because we know not when just such a case may come up in the practice of any one. The ordinary text-

books are not always as explicit as *they might* be, and little notes from personal experience are often of far more value. So with the idea of possibly being of some help to some one of my brother practitioners, I submit the following report:

The patient, F. W. F., is forty-five years of age, and a railway switchman by occupation. About March 5, 1901, he noticed a soreness over the right side of his chest and his right shoulder. This soreness gradually grew worse and extended to and involved the right arm. He consulted a physician at that time, who made a diagnosis (?) of "rheumatism," and treated him accordingly until August 28, 1901.

His condition steadily growing worse, he decided to change physicians. He accordingly called in Dr. Hiram A. Wright on August 29, 1901. Dr. Wright made a careful examination of the seat of the trouble and made a diagnosis of aneurism of the innominate artery. He asked me to see the case with him the following day. I did so and found upon examination that the doctor had correctly diagnosed a large aneurism of the innominate.

There was a marked bulging of the first three ribs on the right side and of the right side of the sternum. There was also a pronounced pulsatile bulging between the origins of the sterno-mastoid muscles, the right half being most prominent. The integument over the tumor and the adjacent area presented a markedly cyanosed appearance.

The patient at this time was in severe pain a greater share of the time. He was suffering from dyspnoea, insomnia and loss of appetite. His voice was harsh and strident; he was coughing a large part of the time, and was hardly able to walk.

His heart's action was very weak and rapid, intermittent and irregular.

Auscultation revealed a pronounced aneurismal bruit or thrill, which was discernable over not only the pulsating tumor, but also over the course of the right common carotid artery.

The extreme gravity of the situation was explained to the patient and his friends, and the fact that the chance of a successful termination, even if operation was attempted, was very doubtful. He replied that as certain death within a few days stared him in the face, if he were not operated, he was willing to take any chance to gain a longer lease of life.

He entered St. Mary's Hospital on September 3, 1901, and I operated the following morning. Chloroform anaesthesia preceded by the administration of fifteen grains of chlorotone (to prevent nausea and vomiting) was employed during the whole operation. An incision five inches long, extending parallel with the clavicle, outward from the sterno-clavicular junction, was made, and the upper part of the aneurism at the root of the common carotid artery was exposed. The aneurism was found to be the size of a hen's egg, only more rounded in shape. I decided to ligate both the common carotid and the sub-clavian arteries at the same time, in the hope that the sac would fill with clotted blood, which would later become organized and the life of the patient thereby prolonged.

The carotid was tied a half inch above the sac, while the sub-clavian was ligated in its outer third. Strong number three, dry-sterilized cat-gut was used. The wound was closed with a buried continuous cat-gut suture, and the integument was approximated with sterilized zinc oxide adhesive strips.

The patient reacted well, there was no swelling of the right arm and no disturbance of cerebral circulation. He made a perfect convalescence, the wound healed by primary intention and he was allowed to sit up at the end of the third week.

At the end of four months he was in better health than for several years, and to-day walks to and from his office (a distance of four and one-half miles). There was at first some atrophy of the right arm, but at end of the fourth month the radial pulse again became established and to-day the arm is as large as ever. At the present time he is engaged in office work, as it was deemed unsafe for him to do any such exhaustive labor as was the case in his previous occupation, railroading.

Of the thirty-six cases which I have found reported operated in this country by the simultaneous ligation of both subclavian and common carotid arteries, but nine recoveries are noted.

In the case personally reported it might be of interest to note that a fluoroscopic examination of the patient five months after operation revealed a solid mass almost opaque to the rays, somewhat smaller than a hen's egg, and occupying a position corresponding to that which was formerly occupied by the aneurism. Dullness can be elicited over the area upon percussion, while inspection fails to reveal any bulging, or in fact anything abnormal, except an almost imperceptible scar.

DISCUSSION.

F. B. TIBBALS, DETROIT.

I am sorry Dr. Hirschman was not able to present the case to you here as he was to the Detroit Medical Society a month or two ago. Dr. Hirschman is entitled to the congratulation of any operating surgeon. These cases are very rare, rarely diagnosed and rarely seen, and there are few men who have the courage to tackle an

aneurism of the innominate artery, and when one is found who has, he ought to be congratulated when his patient recovers.

K. GUNSOLUS, DETROIT.

I cannot help but voice the sentiment of the previous speaker in the doctor undertaking such a formidable operation. In the memoirs of Gross, published in 1868, about the illustrious Valentine Mott, he speaks of him as the greatest surgeon that ever lived, and that he tied more arteries than any other surgeon; and he speaks of the celebrated case of the innominate artery, before that tied by no other surgeon, and with success. It is a formidable undertaking, the ligation of vessels is an interesting one, and it comes to the lot of but few of us, sometimes to only a very few, to do such an operation, but nevertheless we should be prepared, so that when it does come we can ligate any artery that can be safely ligated. The ligation of arteries and the history of the ligature is an interesting one in itself. Celsus, the Roman physician, anticipated the stopping of blood by some other means than the red-hot iron or the red-hot knife 1,500 years before it was acted upon by Paré, and I certainly congratulate this young man—I call him young—for undertaking and successfully carrying out such a formidable operation.

L. J. HIRSCHMAN, DETROIT.

I wish to correct one statement of my friend Gunsolus. He is under the impression that I tied the innominate artery; I didn't; I tied a half an inch above the innominate artery, and I attribute the happy result in my case to the fact that I did not tie the innominate, but that I tied above it, as that artery is too short, and the chances of the ligature slipping are ninety-nine in a hundred, so I don't think he can compare this case with Gross's at all.

THE ADMINISTRATION OF NORMAL SALINE SOLUTION.

ALEXANDER MACKENZIE CAMPBELL,
Grand Rapids.

Normal saline solution or physiological salt solution is a six-tenths of one per cent. solution of chemically pure sodium chloride in water. It is called normal or physiological salt solution, because it contains the same proportion of sodium

chloride as the serum of the human body.

For practical purposes it is prepared by adding a teaspoonful of common salt to a pint of water and filtering and sterilizing the mixture. This, however, is only an approximately correct proportion, as the exact amount per pint of water is 43.728 grains. In hospitals where its use is of frequent occurrence fractional sterilization is employed, and the danger of infection is consequently reduced to a minimum. The fluid should be administered at a temperature of from 110° to 120° Fahrenheit, and this degree of heat should be maintained throughout the operation.

During a short professional career, observations upon and practical experience in, the administration of this solution, both in hospital and in private practice, have impressed me profoundly with its merits, and have constrained me to make this plea for its more earnest consideration and more extended use.

We physicians who live at a distance from great medical centers and who are not within reach of laboratories of research and experiment, only keep step with medical and surgical progress by the application of principles and practices promulgated by our conferees who discover and introduce them. And yet it is largely left with us to pass judgment upon these discoveries and to determine whether they amount to but meteoric hypotheses or important additions to our armamentarium. Normal saline solution has proven to be a valuable auxiliary to the practitioner of medicine and surgery, and its value is by no means fully appreciated or realized.

The injection of fluids into the vessels of the human body to prevent death from hemorrhage is by no means a new measure. Human blood, blood from the lower

animals (plain and defibrinated), alcohol, milk and even mercury has been injected directly into the circulation, and with such unfortunate results that their use is now a matter of little more than history. For more than half a century normal saline solution has been advocated, and its results have been so convincing that the use of all other fluids has practically been abandoned in its favor. There are different methods of administering this preparation, namely: (1) Intra arterial; (2) intra peritoneal; (3) intra venous; (4) rectal, and (5) subcutaneous.

The intra venous, rectal and subcutaneous routes are the ones that have proven to be the most practicable. The procedure in intra venous transfusion consists in disinfecting the surface where the injection is to be made, which is usually into the median basilic vein. Exposure of the vein is made by bandaging the arm above the elbow so as to obstruct superficial venous circulation. Incision over and isolation of the vein, with the application of cat-gut ligatures at either end of the vessel exposed, and ligating the distal end, are the next steps, which are followed by incising the vein and inserting a canula or tube through which is running a hot saline solution. Care must be taken not to admit air into the vein. After transfusion the other ligature is tied and the wound is closed in the usual way. During the operation the finger must be kept constantly on the pulse, and its character must to a great extent decide the amount to be administered. The reservoir should not be over three feet above the patient's head for fear of overpowering the heart, and from one to four pints is the usual quantity employed.

The rectal injection is given in the usual way and is facilitated by the use of a high

rectal tube, which permits a greater quantity to be taken and retained.

The hypodermic or subcutaneous method seems the most reasonable manner of giving this solution. It consists simply in attaching a needle (such as an aspirating needle) to a fountain syringe filled with the fluid. While the fluid is yet running the needle is inserted hypodermatically into the mammary, interscapular or abdominal region, or the inner sides of the thighs. The tissues with gentle kneading readily absorb the fluid, and I have at one time injected over a pint in this manner. While it matters little which of these three methods is adopted, so long as care is taken, and absolute asepsis is maintained, yet it seems that the subcutaneous injection is the most desirable, because it can be performed quickly and frequently, requires no cutting, causes little pain or disturbance, and can be performed by a trained nurse.

The indications for the use of saline solution are many. It has been most frequently used in emergency practice where either alarming hemorrhage or shock from other causes have rendered the patient alarmingly weak or even moribund; and no one has witnessed its vivifying, animating and immediate effects in such cases without recognizing its value. I have seen it successfully administered on the operating table where death seemed imminent at the very beginning or during the most tedious steps of a major operation; and except for its timely use, where death would have supervened before the completion of the surgeon's work. I have seen its effectual result in shock, the result of contusions to the abdomen, head and other vital parts of the body. Its value from the standpoint of the surgeon seems to be more recognized than

from that of the medical practitioner. And yet it was used extensively during a cholera epidemic in 1832 and 1833, and has since been administered during similar outbreaks. It has been used, and is used to-day, in the various exanthematous diseases, to dilute or cause to be excreted the elaborated toxins. It may have some direct antitoxic effect.

Its use in typhoid fever both to oppose the effects of typho-toxine and hemorrhage was illustrated in my own practice a short time ago. A young man, aged twenty-three, came under my care with a malignant form of typhoid fever. At my first visit I became convinced of the severity of his illness, and ordered his removal to a hospital. The pulse, temperature, and respiration all pointed early in the case to a fatal termination. He became delirious on the eighth day, and on the thirteenth day had the first hemorrhage from the bowels. I concluded to administer normal saline solution with the hope of eliminating and diluting the typho-toxine, and of keeping up blood pressure. I left a standing order with the nurse in charge to inject subcutaneously one pint of normal saline solution at the cessation of each hemorrhage. Within a period of ten days, patient had sixteen hemorrhages and sixteen times did we inject the normal saline solution. Each hemorrhage rendered him almost pulseless, and in addition to his profound degree of intoxication we could offer very little hopes for his recovery. We kept the apparatus and salt solution constantly at his bedside, and lost no time in administering it. With most careful watching our patient made a complete recovery, and is to-day a living monument to the virtues of this expedient.

I believe that in the treatment of severe cases of typhoid fever and other ex-

anthematous diseases, the normal saline solution is an extremely valuable adjuvant, and that the day is not far distant when every practitioner will become familiar with its use, and have at hand the apparatus for its administration. It can be used in the most remote country districts or in the lumber camp, as well as in the most modern hospital or costly residence. It is a remedy that may find an appropriate place in the hands of the surgeon in civil or military life, or with the general practitioner and specialist on any day or at any hour. It can be prepared wherever salt and water and fire are obtainable, and can be administered with a fountain syringe and proper terminals.

In conclusion, let us state that it is not the elixir of life, not an agent that is always successful and incapable of doing any harm, and not a remedy that should be given without careful consideration of the patient's condition. Heart disease, haemophilia, atheroma, apoplexy, chronic diseases of the lungs, kidneys or liver, all contra-indicate its use. Yet so far as observation and experiment go, it does seem to be a powerful stimulant to the heart and to the excretory organs. It is eliminated by the kidneys, skin and lungs, and undoubtedly dilutes and causes to be excreted the poisonous products of disease. It will relieve a patient in collapse more quickly than any other agent I have ever seen used, and it may be repeated frequently with impunity. It can be easily prepared, easily administered, and if judgment is used in the selection of the case, with proper attention to details during administration, it is absolutely devoid of danger. It seems to possess the much hoped for therapeutical trinity of stimulant, anti-toxine and reconstructive, and if every practitioner of medicine and sur-

gery will make use of this simple auxiliary he will be convinced, as I have been convinced, that the administration of normal saline solution is a rational procedure, the reward of which is the prolongation or the saving of many a life.

DISCUSSION.

H. W. YATES, DETROIT.

I think the paper is a very timely one and very happily worded. I wish to call attention to the use of normal saline solution in the treatment of a trouble which the author has not mentioned in his paper, namely, pneumonia, and especially pneumonia of children. I fully believe that the use of saline solution, whether used as a transfusion, as the doctor has mentioned, or rectal enema, is of great efficacy. I have used it in a few cases now, and in two or three of those patients I have noticed marked diminution of temperature when the temperature has been running high for days. Of course, we all recognize that the temperature of children in pneumonia is a variable thing; it runs up one hour and runs down the next, but by constantly watching these patients you can easily tell whether it is alone the fluctuation of the temperature or whether there is not also accompanying it a real change in the condition of the patient, and it is just this that I wish to call attention to, that saline solution in these patients has produced not only a fall in temperature, but the child has assumed a brighter look.

I would like to also mention the necessity for the constant readiness for use of transfusions in obstetrical cases. We never know when we are going to have a hemorrhage; it is impossible to tell; they come on like a thief in the night, and it is impossible for us to get ready after the hemorrhage has taken place, and we should have these transfusion appliances ready in every case.

DELOS L. PARKER, DETROIT.

There is one point in the doctor's paper which, though secondary to the main subject, is yet one of importance. This is in relation to the character of the specific cardiac tonic to be used, when, after the employment of the saline solution, medication to stimulate the heart is indicated. The doctor in his paper speaks of having made use of alcohol for this purpose.

Now, alcohol taken into the system, among other effects, always causes dilatation of the blood vessels, and therefore its use in cases char-

acterized by hemorrhage would tend to increase any bleeding that might be present at the time and also to start anew any other that had been stopped by the presence in the vessels of plugs of coagulated blood.

Caffeine citrate and strychnine sulphate, it seems to me, would represent a class of heart tonics that should take the place of alcohol in this kind of cases.

ALEXANDER M. CAMPBELL, GRAND RAPIDS.

I have been very much gratified with the discussion which this paper has evoked. In regard to the last gentleman, he said that he thinks in those cases that alcohol is not indicated. If I understand the therapeutic effect of alcohol, it produces immediately a constricting effect upon the blood vessels, and the dilatation is a secondary effect. Now in this patient whose case I have related, I used whiskey very freely with him, and I watched for all its ill effects, and it never had any. We used this saline solution in emergencies; each time we used it we seemed to be using it to prevent immediate death. I may be mistaken in my judgment of the effect of alcohol, but if I understand it, it at first produces a constricting effect upon the blood vessels, which is followed by a dilatation of the capillaries.

ANNUAL ADDRESS OF THE RETIRING PRESIDENT OF THE WAYNE COUNTY MEDICAL SOCIETY.*

SAMUEL BELL,
Detroit.

The success of a medical society, other things being equal, may be truly said to be due to the efficiency of its corps of officers, although the unprecedented success of the Wayne County Medical Society during the year just closing cannot be attributed to the above reason. A medical writer, long since numbered with the illustrious dead, said: "It is not of so much importance *where* we are as *whither* we are progressing.

Under the advantages of reorganization, every member of the Wayne County

Medical Society is enabled through his membership to become a member of the State and National bodies. With our new conditions come new responsibilities. With so large a membership, including the best talent of the city and perhaps of the state, it will not be difficult to procure papers and to maintain a high standard of excellence; but a question which will appeal to the officers of this Society the coming year will be, how to make the meetings of value and interest to all.

With a mixed membership composed of a few specialists and perhaps eighty to ninety per cent. of men who must earn their bread and butter by practicing general medicine, can we offer them sufficient inducement to attend the meetings, even though it may necessitate leaving the domestic fireside after a hard day's work, or relinquishing the office at the loss of business, or perhaps the discarding of a pleasant social function? It has been the object of the officers during the present year to vary the program, having papers presented by members making a special study of the different departments of medicine and surgery, in order that at some of the meetings each member would find something of especial interest and benefit to him; however, we have only been partially successful.

OFFICE IN A MEDICAL SOCIETY.

In our large and united organization opportunities are presented for the first time in the history of the medical profession in this city for vastly enlarging the influence of the profession and placing it upon a plane where it properly belongs, as a scientific, sociologic body.

My experience as president of this Society has impressed upon me a very important fact to which I wish to call the at-

* Read at the annual meeting, October 2, 1902.

tention of future officers, and which will apply, not only to the one presiding, but to all, and especially to the executive board, viz: that no one should accept office in the Society who is not able and willing to give enough time to properly perform the duties belonging to said office.

This is a truism which applies with greater fitness in our enlarged society.

SOME REASONS GIVEN BY THE PHYSICIAN FOR NON-ATTENDANCE AT MEETINGS.

A few give as a reason that the papers presented are not of sufficient merit to warrant their spending time in attendance and that in such a large society only a few who are gifted or accustomed to public speaking occupy the time, either by invitation or at their own volition.

Then there is the modest physician, who, when asked to take part, pleads inability on account of routine work or want of time. Others have given as a reason that they have evening office hours and have so many patients that they cannot afford to give from two to four evenings a month to meetings. This latter is a very feeble attempt at an excuse. It is well known that the most regular attendants and active participants in our society are those doing the largest business. I could name several who do an immense amount of work, but can nearly always be depended upon for a paper or interesting clinical case or something of value. From a purely commercial standpoint it does not pay to be absent. A medical meeting is rarely held without an interesting paper and discussion, affording to the rank and file of the profession the only post-graduate course which they will have the opportunity of attending. Those who absent themselves are in the end the chief losers,

as the march of progress in medicine is so great that younger and more progressive and better equipped men will be found successful competitors for business.

But it is not in our province to criticize; we wish simply to point out in a kindly spirit some of the weaker points which we as a profession are too liable to drift into, and to prevail upon this large class of successful practitioners to attend our meetings.

Some of the younger and more timid members of the profession give as a reason that they do not feel competent to read and discuss papers and relate clinical cases before so many older and more experienced men. I do not think that there is any young man with the training which our schools give at the present time, who is capable and possesses the confidence necessary to care for a serious case of illness, who should feel any hesitancy in expressing himself on any subject or case with which he has knowledge or experience.

The person who takes part in a discussion even to a very limited extent will find that the subject has impressed him much more deeply and that he has derived much more benefit than if he had remained a silent listener. I know of nothing better which helps a doctor to get out of his narrowness of mind and heart than frequent association with the members of his profession. I know of nothing which keeps the medical man more under the influence of the "green-eyed monster" than staying at home and holding himself aloof from the meetings of the medical associations, local, state or national. What is more inspiring and uplifting for a young physician or for one of maturer years, than to attend a meeting of the national association and listen to the eloquent and learned

addresses and discussions of men of national renown?

HOW SHALL WE INCREASE OUR MEMBERSHIP?

With some eight hundred physicians in Wayne county, our united societies with all enrolled will include only about four hundred and fifty members. Unless our roll of membership includes every reputable physician in Wayne county, the object of our organization will not be fully attained. However, unless more aggressive measures to that end are instituted than those in vogue at the present time, I fear there are many desirable physicians who will not join us.

We would suggest the advisability of mapping out the county and putting workers in each district who will act in conjunction with the councilor of the first district. Another help is the issuance of a medical directory, showing the changes and increase of medical population. The New York County Medical Association issues one annually, which has been of great value in completing and sustaining organization.

BENEFITS OF SOCIAL ENVIRONMENT.

The Wayne County Society has ever been a quasi-social organization. I do not see any valid reason why this very desirable feature should not be continued, with perhaps a little more system. Occasionally spending the whole or part of an evening in a social way is not incompatible with the very best scientific work. The methods pursued in the past have not been unsatisfactory. Some societies have adopted the plan of spending in this way the whole or part of an evening every three months. Our treasury for this year will not contain sufficient funds to pursue such a course, if desired, as one dollar a year

per capita will not enable us to do much entertaining after paying extra incidental expenses.

HOW SHALL THE TALENT IN OUR SOCIETY BE UTILIZED TO THE BEST ADVANTAGE?

This is a question which needs more than superficial thought. During the past few years the medical profession of this city has received many valuable accessions, among them young men from the best institutions of this and foreign countries. In order to encourage and give opportunity for original workers, allowing more time for specialization, it has been suggested that sub-societies or sections be formed in such a manner that more effectual work could be prosecuted without detracting interest from the general meetings. Papers could be presented and cases reported in sections, which would necessitate greater detail and amplification; and those which would be of interest to the general meeting could be presented after the members in their respective specialties had had them under consideration.

This subject will require attention in the near future. Another method of arousing the latent energies of our more ambitious younger members and a method adopted by some societies both in the East and West, is the selecting of a subject of general interest by a committee for which competition is asked from members within the society, the successful competitor to be awarded a prize which would be some remuneration for time spent in preparation, together with the honor connected therewith.

While this method of drawing out the talent within ourselves might be considered as an innovation or an experiment in the Wayne County Society, I believe it is not without merit and worthy of careful

consideration. The money necessary could be readily secured.

LIBRARY FACILITIES.

Are our library facilities ample for the proper prosecution of the science and art of our profession?

With the large supply of local talent which our society possesses at the present time, ought we not to expect some original work or investigation?

It is a great treat to have men come from other cities who have done something more than ordinary, and entertain and instruct us for an evening, but we want to encourage and assist our own talent. From my knowledge of the profession in other cities of similar size, the members of our profession will rank quite as high either collectively or individually. Our library facilities are not what the commercial growth and prosperity of the city would warrant. If one wishes to pursue some original line of study, he is compelled to go to the State University, which necessitates time and expense which he can ill afford. In our city of Cleveland the profession own a library building containing 10,000 volumes, 200 journals and employ a librarian.

Our medical library consists of less than 5,000 volumes and 65 journals, a large number of the latter being contributed by local physicians, the location being in our public library. Reports show that it is but poorly patronized, which is either on account of lack of interest or insufficient material. Under our new conditions and with our increase in numbers, it seems an opportune time for action.

We might establish a fund by private subscription. Every physician in Wayne county could give one dollar; many could and would be willing to give much more.

By this method alone a nucleus would be formed which would encourage and attract endowments.

The medical fraternity throughout the state are looking to us, the largest and most powerful organization, as an example. Questions of public policy should receive our attention and our united support when worthy, and our condemnation when conditions warrant.

I wish at this time to speak of one field in which we as a profession can be of benefit to not only this, but future generations. The question of "Forced education in our public schools" comes up once in a while in our societies; but only recently has there been a thorough scientific investigation, showing the effects of school life upon development. I refer to the very exhaustive report made by Dr. W. S. Christopher based upon measurements made under the direction of the child study department of Chicago's public schools, showing the relation of unbalanced physical development to pubertal morbidity.

The age at which most rapid development takes place in both sexes; the difference in the influence of our method of education on the sexes; whether uniformity of studies is what is needed; these are questions of vital importance to every member of the profession as conservator of the health of the community.

There is an exaltation of the processes of life at this period which finds its expression in greater physical strength and increased mental power. It is at this period of life that the neuroses, psychoses, neurasthenias, cardiopathies, deformities and anemias of puberty are the chief morbid manifestations.

Here is a field for study and observation in which the different specialists could labor on common ground. Where statis-

tics are obtainable it is a pretty well established fact that the great army of neurotics and insane is on the increase, also the class which fills our reformatories. Very many of those filling our institutions at the present time manifested evidence of a defective condition during school life.

For the first time in a quarter of a century, or more, we have a united profession. We sincerely trust and hope that the evidence of already existing *entente cordiale* between the different members of the profession, since coming together in our new relations, will continue, and that the spirit of good fellowship will be felt everywhere; it will do much toward uniting the bonds of the profession.

In conclusion, I desire to thank the officers and members, collectively and individually, for their loyal support during a very eventful year in the history of our society.

ABDOMINAL AND PELVIC DRAINAGE RELATIVE TO GYNECOLOGY.

O. H. CLARK,
Kalamazoo.

Common sense teaches us and surgical experience demonstrates that the methods and means of abdominal and pelvic drainage at the present time are either faulty and imperfect in their application or the principles involved as applied to surgery are wrong.

We have, on the one side, eminent abdominal surgeons who to-day honestly believe, teach and practice that in all septic cases drainage in some form or other is indicated and is an absolute necessity for the welfare of the patient. On the other hand there are equally distinguished gynecologists who question the efficacy of drainage in all forms, and by clinical and

scientific experiments and research have demonstrated beyond a doubt (in their own minds), even in septic cases and when pus is found, not only is drainage valueless in a great majority of cases in which it formerly was used, but is in itself dangerous and frequently, if not always, a means of infection.

The conservatives follow the old school and uphold drainage—the liberals, or more advanced surgeons, say “do not drain.”

It is certainly often very perplexing and embarrassing and a source of great anxiety to the young surgeon, at least under the present teaching, which course to pursue in certain cases, and we not infrequently see him turn during the operation and ask his colleagues the question, shall we, or shall we not drain?

Twenty years ago Sims recommended systematic drainage in every ovariectomy, and it was almost the universal practice up to within a decade. To-day where do we stand on this issue?

Perhaps we may get a better understanding of the subject of drainage by a logical process of exclusion and inclusion. Of the former class I can say without fear of contradiction, that in all abdominal and pelvic operations in which infection is not present, this question is settled—drainage is not indicated and should not be employed under any circumstances. I might add to this class also those septic cases in which the diseased parts and infection can be removed by dissection without contaminating the surrounding tissue or organs. For example, appendicitis, septic ovaries, pus-tubes and intraperitoneal abscesses. The latter class, or those cases in which the abdominal or pelvic inflammation has been in progress for a considerable length of time, tumefaction has taken place, is walled off, localized, and cannot be enu-

cleated; and also purulent peritonitis in which suppuration is extensive: open, wash out, drain with gauze either through the vagina or abdominal wall (the former is always preferable when it can be done) would be good surgery and perhaps the consensus of opinion to-day.

On the border line, however, between these two general classes the main question of controversy is whether to drain or not drain, and perhaps the majority of operations are included in this group.

In the removal of a pus-tube, it is ruptured, the peritoneum is infected, or perhaps there is a small perforation in the appendix and pus has leaked into the abdominal cavity, or in the dissection of a pelvic inflammatory mass, it is torn and contents poured into the cavity. What is to be done in this class of cases with reference to drainage? Zweifel has long protested against the use of drainage in all forms, and insists "That it is dangerous and should be relegated to surgical history."

Clark, of Johns Hopkins Hospital, in his admirable paper in the *Journal of Obstetrics and Diseases of Women*, after a careful review of seventeen hundred cases of abdominal sections, with special reference to drainage, says: "By clinical observations the conditions supposed to demand drainage have been gradually reduced from a formidable number to a comparatively small one, and I am certain that this number is still too large; that I am unable in some cases to make it better is true, but in many cases a more minute attention to the smaller details of surgical operations with a greater reliance upon the ability of the peritoneum and general system to eliminate infectious matter, will overcome many difficulties which are now incorrectly supposed to be obviated by drainage."

With reference to the gauze drainage, Drs. Miller and Clark say, "After careful bacteriological examination of sixteen drains it was proven that in not a single instance was the entire piece of gauze free from organisms."

One of the foremost authorities on this question, it will be generally admitted, is Dr. Howard Kelly, of Baltimore. He speaks with knowledge. He tells us: "My clinical work, combined with bacteriological research on the infection of the tube tract convinced me that the glass tube was often powerless to remove fluids from the pelvis and was a source of great danger as a channel of infection of clean wounds. The glass tube was therefore unconditionally abandoned. I still felt the necessity of providing some means of eliminating fluids collecting in the peritoneal cavity and so adopted and used the Mikulicz gauze bag. This proved no more efficient than the simple gauze drain, which was next used and only in infected cases; and no cases were drained simply because of the numerous adhesions, separated and raw surfaces left behind. When pus was found and the microscope showed the entire absence of organisms, the drain was not used. When the gonococcus was found the drain was never used under any circumstances. When the staphylococci and colon bacillus were found in no great numbers the drain was not used. When the staphylococci and colon bacillus were found more abundantly, and the streptococci was found in moderate numbers, a drain was used—but a further study of the gauze drains in the few cases in which I was then using them, led me to the conclusion that they also usually became infected after operation through the opening left in the incision, and that this infection might occasionally give rise to a serious and even fatal result." In conclusion he says, and it is emphasized by italics, "Of my last one hundred cases not one has been drained."

OBJECTIONS TO DRAINAGE.

First.—It defeats the object for which the surgeon intended it, viz: to give a free exit for pus, serum and infectious matter. A small quantity of fluid may be removed during the first few hours, after which the drain acts as a plug and prevents the out-flow.

Second.—It is a foreign body and acts

as an irritant, increasing the exudate and weakening the natural power of the peritoneum to eliminate poisons.

Third.—The drain soon becomes saturated with small blood clots and coagulated serum and becomes a good culture medium for the development of bacteria.

Fourth.—The wound is almost invariably infected sooner or later, producing a suppurating sinus which may persist and discharge for months.

Fifth.—Gauze drain is often very difficult to remove, and hemorrhage may follow.

Sixth.—The abdominal wall is weakened and hernia is one of the sequelae in about eight per cent.

Seventh.—Healing of the wound is greatly retarded, necessitating the process to go on by granulation.

Eighth.—Great pain sometimes follows the removal of the drain and serious accidents may occur, loops of intestine and parts of the omentum may be dragged out of the abdomen.

Ninth.—Fecal fistula may be one of the complications arising from drainage.

Bearing these objections in mind, and considering the facts demonstrated by Kelly, Waterhouse, Clark and others, of the imperfection of drainage, is it not time to call a halt, and carefully consider the prevention and removal of infectious matter without the employment of the drain?

No preliminary preparation requires more care than the proper cleansing of the hands and field of operation. Rubber gloves should be insisted upon in all cases, as no amount of scrubbing and antiseptics can rid the hands, especially the spaces under the finger nails, of all bacteria. The preparation of the patient should be executed by a nurse who has had special training along this line, and should be begun at least twenty-four hours preceding the operation.

Too many assistants always increase the liability of infection. One, perhaps two, is sufficient. Handling the intestines and bruising and injuring the peritoneum lowers the vitality of these tis-

sues and furnishes good ground for the growth of micro-organisms. All raw surfaces should be covered with peritoneum as far as possible. No bleeding wounds should be packed to control hemorrhage. A bit of gauze on the end of a pair of forceps will better remove infectious material (when it has escaped into the abdominal cavity) and blood clots, than saline flushings. The greatest care, however, should be exercised in preventing this accident.

The successful abdominal operator, and the one who will receive the highest reward and achieve the most fame, is not the so-called brilliant and rapid operator—but rather the one who is patient, painstaking, careful in all the technique surrounding the operating table, careful in his dissections, that the cavity may not become infected, and above all heeding the use of the drain.

Kelly says: "Drainage is a confession of imperfect work on the part of the surgeon." I am a firm believer in the truth of this statement, and it has been demonstrated over and over again in abdominal surgery that the peritoneum can and does dispose of large quantities of fluid and infectious matter.

Drainage is still too frequently used, and the supposed benefits derived therefrom are a delusion and it has been proven a snare for the development and propagation of bacteria.

REVISED CONSTITUTION AND BY-LAWS FOR COUNTY SOCIETIES.

That there may be a uniform standard of principles and a uniform method of work, the attention of the members, especially in the counties in which a County Society is not already chartered, is called to the revised Constitution and By-Laws prepared by the Chairman of the Council and the Secretary of the Society, for adoption by the County Societies (page 142).

The Journal of the Michigan State Medical Society

PUBLISHED MONTHLY

A. P. BIDDLE, M. D., Detroit.....Editor | S. EDWARD SANDERSON, M.D., Detroit, Bus. Mgr.

Board of Councillors

(Chosen one from each Congressional District)

First—LEARTUS CONNOR, Chairman.....Detroit
 Second—N. H. WILLIAMS.....Jackson
 Third—W. H. HAUGHEY, Secretary.....Battle Creek
 Fourth—G. W. LOWRY.....Hastings
 Fifth—J. B. WHINERY.....Grand Rapids
 Sixth—C. B. BURR.....Flint
 Seventh—OLIVER STEWART.....Port Huron
 Eighth—S. I. SMALL.....Saginaw
 Ninth—B. H. McMULLEN.....Cadillac
 Tenth—H. B. Landon.....Bay City
 Eleventh—W. T. DODGE.....Big Rapids
 Twelfth—THRO. A. FELCH.....Ishpeming

OFFICERS OF SECTIONS

General Medicine

GEORGE F. BUTLER, Chairman.....Alma
 WILLIS S. ANDERSON, Secretary.....Detroit
 I. H. NEFF, Orator.....Pontiac

Surgery, Ophthalmology and Otolary

KENNETH GUNSOLUS, Chairman.....Detroit
 W. A. SPITZLEY, Secretary.....Detroit
 F. W. ROBBINS, Orator.....Detroit

Obstetrics and Gynecology

RICHARD R. SMITH, Chairman.....Grand Rapids
 C. K. LAHUIS, Secretary.....Kalamazoo
 F. A. GRAWN, Orator.....Munising

County Societies, Branches of the State Medical Society

	President	Secretary	Address of Secretary
BAY	V. L. TUPPER	M. GALLAGHER	Bay City
BRANCH	H. W. WHITMORE	J. H. ANDERSON	Union City
CALHOUN	GEO. C. HAFKORD	W. H. HAUGHEY	Battle Creek
EATON	G. B. ALLEN	W. H. RAND	Charlotte
GRAND TRAVERSE	A. S. ROWLEY	OSCAR E. CHASE	Traverse City
HILLSDALE	BION WHELAN	H. H. FRAZIER	Moscow
HOUGHTON	A. I. LAWBAUGH	W. K. WEST	Calumet
IONIA	CHAS. S. COPE	F. W. BRALEY	Saranac
LIVINGSTON	W. J. MCHENCH	R. H. BAIRD	Howell
MANISTEE	ELLSWORTH T. ELLIS	W. K. BRANCH	Manistee
MASON	A. P. McCONNELL	W. C. MARTIN	Scottville
MECOSTA	J. W. MCNEECE	F. C. TERRILL	Big Rapids
MONTCALM	JOHN AVERY	H. L. BOWER	Greenville
MONROE	V. SISUNG	GEO. T. HEATH	Monroe
OAKLAND	F. B. GALBRAITH	WM. MCCARROLL	Pontiac
O-M-C-O-R-O	S. N. INSLEY	C. C. CURNALIA	Roscommon
SAGINAW	T. M. WILLIAMSON	M. D. RYAN	Saginaw
WAYNE	F. B. TIBBALS	HUGH MULHERON	Detroit
WEXFORD	B. H. McMULLEN	G. D. MILLER	Cadillac

Entered Sept. 6, 1902, at Detroit, Mich., as second-class mail matter, under Act of Congress of March 3, 1879.

DETROIT, NOVEMBER, 1902

OLD MEN IN STATE MEDICAL ORGANIZATIONS.

An organization of the medical profession must include the young, the middle aged and the old. Abundant provision has been made for the first two classes, but little, if any, for the last.

Those interested in professional organ-

ization do well to study the influence of old men. Is it possible to have this influence helpful to the end of their lives? If so, how?

The facts are that non-payment of dues is followed sooner or later by dropping from the roll of membership. If this occurs during the productive period of professional life, none can complain, and such

members—if it is impossible to change their habit in this regard—were better dropped. But when the non-productive period is reached, with no great surplus for actual necessities, the question is different.

We will assume that all old members would be glad to continue their membership; would like to meet their fellows on equal footing, to point with pride to *their* State society, and to discuss its past deeds, its present plans and future prospects with young medical friends. Under the conditions mentioned, their names are stricken from the rolls, and the State society knows them no more, and they know it only as a memory. Some who are not philosophical resent the action as an injustice, as undeserved. Brooding over it in secret, as they are too proud to make their feelings public, they become soured, pessimistic, inclined to make the most of every mistake of the society, and to advertise it unfavorably to their medical friends, and especially to the younger ones. They form foci of infection, and both weaken existing organization and retard the normal growth and development of all.

The remedy is simple, as shown in the organization of the Michigan State Medical Society, viz: to place them on a roll of honor. This is done with such restrictions that the unworthy are excluded and the list made literally a Roll of Honor. All privileges of membership are retained, but no dues exacted. With such conditions there is no reason why all workers in an organization may not remain therein till unable to answer the roll call.

The writer has so frequently observed the evils of past methods in dealing with this class in the profession, that he urges others to study it and to do what they can to effect their removal.

The keynote of real organization is mutual helpfulness, beginning at the so-called top and permeating to the foundation—the individual doctor. There is no question that the extension of this spirit to the class under consideration would receive such a response as greatly to profit state medical organization.

LEARTUS CONNOR.

INTERMITTENT ESSENTIAL FEVER.

Intermittent essential fever is a late syphilitic pyrexia and is not the fever which begins with or shortly after the secondary rash of syphilis has appeared. It may occur many years after the primary stage. For instance, one of Dr. Sidney Phillips' cases had no pyrexia (syphilitic) until ten years after the initial sore.

This late fever of syphilis is of interest for several reasons—first, because it is by no means uncommon; second, because so little is written concerning it; third, because with a correct diagnosis the fever can be controlled and the patient freed from its disagreeable companionship.

The type of fever, as its name would indicate, is usually intermittent, though at times it is remittent. When it is of the former type it has to be diagnosed from tertian or quartan malaria and pulmonary tuberculosis and, when of the latter, from typhoid and other continued fevers.

Differential diagnosis—(a few points).

A. *Intermittent Form.*

Malaria.

1. History:

Whether patient has been living or lives in a malarial region.

2. Blood examination:

(a) Leucopenia.

(b) Malarial parasites in blood.

3. Therapeutic test:

- (a) No response to mercury or potassium iodide.
- (b) Quinine or arsenic controls disease.

4. Sputum examination:

No tubercle bacilli.

Pulmonary tuberculosis.

1. History:

- (a) Family,
 - (b) Personal,
- May help one.

2. Blood examination:

- (a) Leucocytosis.
- (b) No malarial parasites in blood.

3. Therapeutic test:

- (a) No response to mercury or potassium iodide.
- (b) Quinine or arsenic: No effect.

4. Sputum examination:

Tubercle bacilli may be found if carefully looked for.

Syphilis.

1. History:

History or signs of other syphilitic lesions.

2. Blood examination:

- (a) Leucocytosis.
- (b) No malarial parasites in blood.

3. Therapeutic test:

- (a) Fever responds to potassium iodide or mercury.
- (b) Quinine or arsenic: No effect.

4. Sputum examination:

No tubercle bacilli.

*B. Remittent Form.**Typhoid Fever:*

1. History:

Where patient has been living or lives.

2. Blood examination:

- (a) Leucopenia (as a rule).
 - (b) Widal reaction
- May be positive.

3. Typhoid bacilli:

May be found in stools or in blood.

4. Therapeutic test:

Fever does not respond to potassium iodide or mercury.

Syphilis:

1. History:

History or signs of other syphilitic lesions.

2. Blood examination:

- (a) Leucocytosis.
 - (b) Widal reaction
- Negative.

3. Typhoid bacilli:

Not found.

4. Therapeutic test:

Fever responds to potassium iodide or mercury.

Evidence of syphilitic choroiditis, syphilitic periostitis, syphilitic arthritis, syphilis of the lungs, or gummatous deposits some where can be found at times if careful examination is made.

Treatment.—This is very satisfactory. As a rule the fever falls quickly, sometimes within three to seven days after proper treatment is begun. Whether the iodides control the fever more quickly than does mercury is still a matter of dispute, though the majority of clinicians favor the use of the former.

GUY L. CONNOR,
Detroit.

The Secretaries of the County Societies are requested to send in for publication all matters of interest to their members.

THE COUNTY SOCIETY A UNIT.

That the medical profession has awakened to the necessity of organization is already apparent from the successful work in this state. That more missionary work, however, is needed is felt from the objections raised in some quarters as to the necessity of making every member of the County Society not only eligible to membership in the State Society, but an actual member thereof. Objection is raised that coercion is used, that a physician is forced to join the State Society whether willing or unwilling; and it is claimed that he should have the right of membership in his County Society without being obliged to join the State organization. Were such a hybrid state of affairs permitted, it would destroy the very purpose of organization; we would be no better off than we were before. As soon as a County Society is chartered it becomes a branch of the State Society and it would be impracticable to have members in its branches who were not members of the parent organization. We want the individual member of the profession interested; we hope to show him that the things which affect the profession as a whole affect him individually and that he should interest himself in medical affairs for his own good. Besides, it would be impossible to keep in organization a County Society in which some of the members could vote and others could not vote for delegates to the State Society, and on other matters in which they should have an equal voice. It must appeal to every physician that his work for good must not be limited to his own town, city or county—that he must rise above local conditions and add his strength and influence to the common good. He cannot do this by remaining obscure, unknown

save in his locality, by being a member of a county society only, but he must be an active member of the State Society and by his presence and voice, or by his duly accredited representative, make his wants known and his influence felt. It is only by such union of interests that we can expect to attain the results desired; to be strong as a national organization we must be strong in all parts; the local profession must be well organized and duly represented in the higher societies. By effective organization we hope to attain higher standards of medical education; similar medical laws and requirements and reciprocity among the states, representation in national affairs in which the profession is vitally interested, such as quarantine regulations, etc.

The county society is our unit. Its members must have equal privileges, equal opportunities, equal representation. It cannot be so with its membership divided. Every member is by virtue of his membership not only eligible to membership in the State Society, but is an active member thereof.

THE PRESENT STATUS OF THE BILE QUESTION.

Until recent date it has been accepted by the medical profession and taught by physiologists that the bile was a secretion necessary to digestion, and that for the continuance of good health it must be poured into the duodenum to perform its digestive function. It was also believed that the amount secreted between the periods of taking food was stored up in the gall-bladder, to be expelled at the time that food would be taken again. Recent investigation by Dr. Angus McLean at Harper Hospital, Detroit, first reported in

The Medical Age for February, 1902, has proven that both of these theories are somewhat incorrect. While it has been shown that a portion of the constituents of the bile, "the bile acids," do have some action on the fatty substances in the food, it has also been demonstrated that other constituents of the bile, cholesterin, etc., pass through the intestinal canal without being changed in any particular.

The bile is now looked upon largely as an excretory product, the liver acting as an excretory organ; for, when the bile escapes through a biliary fistula, there is little interference with health. It has also been demonstrated that the biliary flow is continuous, that only a small percentage of the bile secreted between meals can be stored in the gall-bladder, and that the gall-bladder is not a necessary appendage, for health is just as perfect after its removal as before.

These principles are not in accordance with the teachings of the older physiologists, but appear to be well supported by recent investigations on the action of bile as well as with experiments on the biliary flow.

SEE THAT YOU ARE REGISTERED.

THE JOURNAL believes the following paragraph, from the *Journal of the American Medical Association* of October 18, 1902, to be of considerable importance:

"A case recently occurred in this city, says the *Peoria Medical Journal*, which strongly emphasizes the need of physicians attending to the matter of registering their certificates under demands of the law. Dr. H. T. Thomas, who has been practicing medicine here for fourteen years, found it necessary to sue for a claim for professional services; but when the case came to trial he was surprised to find that he had absolutely no standing in court, not having registered his certificate, and was in addition mulcted in a considerable sum assessed as costs."

Communications.

OUR WORK OF ORGANIZATION.

In his annual address at the Port Huron meeting of the Michigan State Medical Society, the retiring president, Dr. Leartus Connor, gave us a lucid résumé of the history of the society from its organization, 1819, to the present time, a period of eighty-three years with but two interruptions, 1851 to 1853 and from 1860 to 1866. It is plain to be seen that its inception originated with a few liberal minded physicians, who were desirous of uniting the interests of medical men into a society for the purpose of self-culture, the broadening of their medical, surgical, moral, social and legal standing, and to impress upon every community of the territory the benefit to be derived from such an organization in the alleviation of human suffering, and in the forming of proper laws relating to public health. Those who heard this excellent address, and those who may read it in full in the journal of the society, can but be impressed with the fact that never during its long and honored history has there been, comparatively speaking, but a very small percentage of the members of the medical profession of the state enrolled as members of the organization. That this society should have prolonged its long and honored existence and maintained its pre-eminent standing is certainly a marvel to the medical profession of the state, and speaks in language plainer than I have the ability to write the mettle of the men who made up its membership.

It is evident that, if these few faithful and self-sacrificing physicians did build up and maintain such exalted ideals to regulate and to guide our professional conduct, that we may expect much if we band together into one harmonious whole the 4,500 physicians of our state. For years our medical societies and journals have been advocating the importance of a thoroughly organized medical profession. But the profession was deaf to the appeal, was apathetic and was not to be aroused even by an appeal to its own interests. But, thanks to the perseverance of such men as McCormack of Kentucky, Simmons of Chicago, Reed of Ohio, Connor of Michigan, and a host of others, whom I might here mention, who were actuated by one common purpose and the genuine belief in the future greatness and exalted dignity which our chosen profession should occupy, the appeal has been heard at last.

In 1901 at the St. Paul meeting of the American Medical Association a new era dawned upon the medical profession of the country. A plan

was devised and immediately adopted whereby the whole medical profession should be organized. This plan first embraced the reorganization of the American Medical Association, then to extend to the whole profession of the United States, embracing every state, and placing each state in harmony with the national body. The state medical societies are to be made up of active county medical societies, which are to be the real life and energy of the medical profession of the state.

Acting upon the recommendation of the American Medical Association, the president of our state society, Dr. Connor, appointed a committee of three members to formulate a new constitution and by-laws to conform to the new plan of organization. After many meetings of this committee the work was finally completed and submitted to the state society last June. The plan carried with it a new organization of the State Medical Society in its entirety. It also provided for the organization of a County Medical Society in each county in the state; provided that these county societies shall be a component part of the state organization, and that every physician must be in good professional standing to hold membership in it and in the American Medical Association.

In this connection I may say that I find quite a belief among the members of the old society that, if they pay the annual dues to the society, they can hold their membership and not necessarily be in affiliation with the county society. The constitution expressly states that the membership in the various county medical societies, reported by the secretary of the same to the secretary of the state organization, shall constitute the membership of the latter.

To the happy surprise of the committee on reorganization its report was unanimously adopted by the society with such additional changes made in the report as in the judgment of the committee seemed essential for the completion of the work of organization of the State Medical Society. An important change was the reduction of the yearly dues from three dollars to two dollars, to be paid to the secretaries of the county societies, and by them to the secretary of the state society, by an assessment per capita. Provision was also made for the transactions of the society to be published in journal form and furnished to each member of the organization without extra cost. The importance of having a representative state medical journal needs no comment. With the active co-operation of the medical profession of our state it will stand as the exponent of advanced medical thought and fulfill a long-felt want to the profession of the state.

To the board of councilors, provided for in the new organization, consisting of 12 members, one for each of the congressional districts, is given in particular the organization and nurture of the county societies. The work they have done up to the present time is certainly gratifying. It is marvelous to contemplate the zeal, enthusiasm and hearty co-operation the profession of the state has manifested in its support of the plan as adopted. It only emphasizes the fact that when this great body of physicians is brought to realize the fact that "to meet the requirements of public sentiment and to stand abreast with advanced medical thought and lofty professional ideals, it must appropriate the spirit of the age and organize, if it expects to make an impression upon organized society; that to stand alone, no matter how meritorious his professional ambitions and work may be, the physician can accomplish but little in the progress of human activity."

The medical profession of our state has been a most potent power for good in every community. But we all well know the exercise of that power has never been brought into operation in behalf of those great problems concerning the best interests of the medical profession and public at large. Its influence has been latent, for the reason that there has been no well organized effort and has been beset by many petty differences of opinion among its membership. Had the 4,500 physicians of our state stood shoulder to shoulder as one in interest at the time the medical bill was before the legislature, they could have wielded an influence which would have forever precluded the possibility of that body ever recognizing that small band of deluded disciples of "Christian Science" and that other product of a simple, ingenious theorist, osteopathy, on an equality before the law and made them respectable.

Why is it that after eighty-three years of faithful labor as physicians among the people, "our influence is so transient, so feeble, that the most absurd fad, the most hair-brained delusion, the most fantastic fraud which comes along, spreads its pernicious poison among our people like that of a prairie fire?" In our addresses and after-dinner speeches we boast of our educational influence over the masses, yet how much weight do our opinions as medical men amount to in public matters, and with what indifference do those who make our laws listen to our protests and suggestions?

The dawn of better things is now, however, upon us, "a new era of medicine." By the action of the last meeting of our State Medical Society

we have "drifted so smoothly into the tide that we have hardly noticed a jar," and when we realize what has happened we at once discover that we have really drifted unconsciously into the current of medical evolution and professional advancement.

To crystalize and perpetuate this most exalted position demands organized effort in every county in the state. This united action of the profession of our state is an absolute necessity at this time. It is left for our decision at once to enter the golden fields of promise and to possess it, or to drift into ignominious failure and remain a passive factor, as we have been so long in the past. The old State Medical Society was the mouthpiece of a little more than 600; the new should be the mouthpiece of more than 2,000 the first year of our organization. To-day the county medical society is the chief center of interest, as through it only can a physician become a member of the state society and of the American Medical Association. The county society must be the sole judge of the eligibility of membership. It is a component part of the state society. Around it must center the strength and professional ability of every physician within its jurisdiction. It must be made strong and representative in every detail.

There is quite a difference of opinion among the physicians of the state regarding the term "eligibility," "sectarian medicine," etc. See Chap. XIII., Sec. 5, of By-Laws, which reads: "Every reputable and legally registered physician who is practicing, or who will agree in writing over his own signature to practice, non-sectarian medicine only, and to sever all connections with sectarian colleges, societies and institutions, shall be entitled to membership."

The code of medical ethics is the mighty superstructure of our reliance and support. Ignorance and superstition have flamed against it, dissensions have dared to break it down, but it still stands the "beacon light" of the grandest profession the world has ever known; a safeguard to you and me. May it stand, as it will stand, as the true guide of our professional conduct until rational medical research can offer something which is better.

My own desire is to see an organization which will draw to its councils every reputable medical man and woman in our state. Men and women who are known *not* because of any so-called "pathy," but for a broad and liberal knowledge of medicine as a true science and an art.

There are many physicians in our state who are deluded and who would sacrifice almost anything

to get out of the rut in which they are struggling. Let us do what we can to help them; let us hold up the "beacon light" of rational medicine; let us impress them with the fact of the utter falsity of a "partial system" of medicine and spread abroad the effulgent rays of the glorious future of the medical profession on this, the dawn of the 20th century.

A. E. BULSON,

President Michigan State Medical Society.

County Society News.

At the afternoon session of the Jackson County Medical Society, held at Jackson, October 14th, 1902, the following papers were presented:

"Typhoid Fever," A. J. Roberts, Jackson; "The Omentum," W. H. Haughey, Battle Creek; "Appendicitis," C. D. Munro, Jackson; "Infantile Ophthalmia—Purulent," J. F. Wesch, Jackson.

The evening session was given up to the consideration of a paper on "The Use and Abuse of Uterine Curetting," by Reuben Peterson, Ann Arbor.

The Houghton County Medical Society met at Houghton, October 6th. The meeting was well attended. The program for the evening was as follows:

1. Report of Case and Presentation of Patient. J. Wendell Clark, Calumet.
2. Empyema. A. I. Lawbaugh, Calumet.
3. The Blood Changes in the Diagnosis of Pernicious Anaemia. Simon Levin, Lake Linden.

The Wayne County Medical Society is in a flourishing condition; nevertheless, the officers are working with enthusiasm to increase its already large membership and to encourage present members into more active participation in its meetings. The Society meets on Thursday evening of each week. During October papers

were presented by H. W. Longyear, David Inglis, L. J. Hirschman, H. E. Saford, C. G. Jennings, and Geo. E. McKean. In order to further the interests of members, it is now proposed to do a certain amount of the Society's work in sections, along the lines followed by the American Medical Association and by many state medical societies. In a society so large as the Wayne County this is much to be desired and will add greatly to the benefits to be derived from membership in the Society. The definite plan of this rearrangement will be announced later.

Report of Committee on Necrology.

Your Committee on Necrology herewith submits its report on the death of nine members of the society.

Of this number eight died within the year, one having died in 1900, but not heretofore reported.

The last death coming to the notice of the committee was one of its own members, Dr. C. F. Morgan, of Greenville.

The chairman regrets that he has been unable to secure the aid of fellow-members of the committee; and also that it has been so difficult, in some cases impracticable, to get from friends material for biographic and professional memorial sketches, which fact must be accepted as the reason for brevity of some of the notices.

The committee is in doubt as to its right, or discretion, to include in its report mention of members who for many years had been active in support of the society, but by reason of advancing age or illness had been unable to keep up attendance or active relations with the society the past year or two. The committee would suggest that the society express opinion on this point. The renewal of lapsed membership of the living member is now provided for by recent action of the society. Is it not equally appropriate to offer a similar privilege of respect to the memory of the deserving dead?

WM. F. BREakey,
For the Committee.

..In Memoriam..

DONALD SINCLAIR CAMPBELL,
1857—1901

ANDREW BLISS CHAPIN,
1839—1902

R. ARTHUR CARMAN,
1866—1900

A. PHILO DRAKE,
1828—1902

CHARLES N. HAYDEN,
1832—1902

C. A. JOHNSON,
1857—1902

CHARLES F. MORGAN,
—1902

HORACE TUPPER,
1830—1902

OSCAR E. YATES,
1845—1901

GEO. F. HUNTER,
—1902

DONALD SINCLAIR CAMPBELL,
1857-1901.

Donald Sinclair Campbell was born February 18th, 1857, in Glengarry County, Ontario, his grandfather, Malcolm Campbell, being one of the pioneers. He was educated at the High School in Alexandria, Ontario, at Woodstock Baptist College and Toronto University, and took his medical degree at the University of Michigan with the class of '77. He then spent a year or more in post-graduate study in Edinburgh and London under Sir Morrell McKenzie; then began general practice in Wilson, Niagara County, New York, and later was elected president of the Niagara County Medical Society. In 1885, after spending six months in post-graduate work in New York, he located in Detroit, where he practiced his specialty of the ear, nose, throat and lungs, until his death, Dec. 17th, 1901, from typhoid fever, after a short illness. In accordance with his wishes, the remains were cremated. Funeral services were under the auspices of Damascus Commandery No. 42, Knights Templar, the bearers, all physicians and personal friends, being chosen jointly from Damascus and Detroit No. 1. He was married in 1880 to Miss Frances Bailey,

of Wilson, N. Y. The doctor was one of the leading practitioners of Michigan in his specialty, and an old member of the State Society, joining in 1886; also of the Detroit Medical Society, the American Medical and American Electro-Therapeutical Associations. He was a genial, whole-souled friend and a practitioner of great ability.

The committee acknowledges the kindness of Dr. F. B. Tibbals in furnishing the foregoing sketch of the life of Dr. Campbell.

ANDREW B. CHAPIN.

1839-1902.

Andrew Bliss Chapin, of Mt. Clemens, Mich., son of Elam and Sarah Lavancha (Davis) Chapin grandson of Jonathan Chapin, was born April 5th, 1839, at Shelby, Mich. After receiving a common school education he attended the academy of Colonel Keeler, Disco, Mich., and commenced the study of medicine in 1858 at Disco with Dr. James N. Cole; attended two full courses of lectures at the department of medicine and surgery of the University of Michigan, from which he was graduated in March, 1861; also attended post-graduate lectures at Bellevue Hospital Medical College and College of Physicians and Surgeons, in the city of New York, 1875 and 1876. He commenced the practice of medicine December 9, 1861, at Flint, Mich.; was appointed September 12, 1862, assistant surgeon, U. S. Volunteers; had charge of St. John's College Hospital, Annapolis, Md., in 1863; went up the James River with General Butler, May, 1864, in charge of a brigade of batteries, and later was transferred to Kautz's division.

Dr. Chapin was professor of materia medica at the Michigan College of Medicine in 1885, and general pathology in 1886. He was a member of the Michigan State Medical Society from 1866, and vice-president in 1874; member of the American Medical Association; member of the school board, Flint, Mich., in 1874; mayor of Mt. Clemens, 1891; county physician in 1890, and member of the pension board of the district about the same time. He had full charge of the small-pox hospital in Chesapeake bay, in 1863. Dr. Chapin wrote an article on the "Treatment of Epilepsy," which was published in the *Detroit Lancet* about the year 1882. He died March 9th, 1902.

The committee is indebted to Dr. W. F. Berry for the above sketch of Dr. Chapin.

R. ARTHUR CARMAN.

1866-1900.

Dr. R. Arthur Carman was born on a farm near Flint, March 27, 1866; was educated in the Flint public schools; graduated from the Mich-

igan College of Medicine, March 23, 1897; taken sick with pneumonia in May, 1900; suffered a relapse, which terminated in tuberculosis, and died July 12, 1900. He commenced the practice of his profession in Saginaw, E. S., in May, 1897. It was said of him by old physicians then: "No young doctor ever made friends with all the other doctors, and worked up so large a practice in so short a time as he."

A. PHILO DRAKE.

1828-1902.

Dr. Drake was born July 31, 1828, near Palmyra, N. Y., and died March 10, 1902. He removed to Washtenaw County, Mich., when a young boy and lived on a farm until sixteen years old. His early determination to study law was abandoned, and he turned his attention to the study of medicine, remaining three years at a medical college in Cleveland, Ohio. He received his degree of M. D. from that institution in 1850, and began the practice of medicine in Wisconsin, but removed to Hastings, Mich., two years later. None knew better than he the arduous labor of a pioneer physician. He trod the self-denying path of duty, undaunted by summer's heat or winter's cold, fearless alike of praise or censure.

During 1855, '56 and '57 he was employed in making government surveys in Nebraska. In 1864 he entered the military service as surgeon of the New Third Mich. Vol., and for many of the last years of his life he was secretary of the pension examining board at Hastings.

Slow to recognize or acknowledge his own ability, he was a profound student of medicine, a close analyzer of disease, and ambitious to keep in touch with the progressive spirit of the age. He was broad in his character and genuine in his sympathy.

For the above tribute we are indebted to the *Hastings Herald*, March 13, 1902. Other portions of the memorial sketch, not especially pertinent to a medical biography, showed that the doctor was held in high esteem as a citizen and enjoyed in large measure the confidence of the community in which he passed the greater part of the riper years of his life.

Dr. Drake was elected to honorary membership in this society in 1899, and was the only honorary member resident in the state.

CHARLES N. HAYDEN.

1832-1902.

[Abstracted from *Lansing State Republican*.]

Dr. Charles N. Hayden was born at Sodus, N. Y., October 12, 1832, of New England parent-

age. At the age of fourteen he came with his parents to Michigan and received his early education in the schools of this state and graduated from a medical school in Cincinnati before he was twenty-one years old. Later he obtained diplomas from a medical school in Cleveland and from the Rush Medical College, Chicago. (The Medical Register gives Dr. Hayden as a graduate of the Cleveland College of Physicians and Surgeons.) In October, 1854, Dr. Hayden was married to Mrs. Mary Baldwin, in Charlotte, both being residents of Onondaga. Dr. Hayden came to Lansing in 1876 and lived there till his death in April last. He built up a large and active practice. His health had been poor for some years preceding his death. He was a member of the board of examining surgeons for pensions during President Cleveland's administration. He was a member of St. Paul's church and of Jackson Commandery, K. T.

C. A. JOHNSON.

1857-1902.

Dr. C. A. Johnson was born June 2, 1857, in Grand Rapids, Mich., where he passed the earlier part of his life. After completing the work of the city schools, he graduated from the Business College. He was in the grocery business awhile; then he went to study medicine at the University of Michigan, from which he graduated in June, 1889. He went to Grand Rapids, where he was appointed house physician of the U. B. A. Hospital, and after serving in this capacity for one year was appointed surgeon for the G. R. & I. Railroad Co., with location at Mancelona, Mich. He was also surgeon for the Antrim Iron Co.; a member of the district pension examining board; member of the National Association of Railway Surgeons; member of the State Medical Society since 1890; has held the office of health officer of Mancelona; was county poor physician of Antrim county; was director in the Antrim County State Savings Bank; and was engaged in general practice. He was married May 2, 1894, to Miss Margaret J. C. McDonald, of Mancelona. He was a good physician and loved and highly respected by every one who knew him.

CHARLES F. MORGAN.

The committee regrets its inability to learn more concerning the life of Dr. Morgan, than that a Michigan Physicians' Directory, published in 1893, located him then at Greenville, Mich., as a graduate of Yale, 1866, the same year that he was admitted to membership in the society. The

records of the Northern Michigan Asylum show that he was admitted to that institution September 13, 1900, and died April 29, 1902, of general paralysis.

HORACE TUPPER.

1830-1902.

[From *Bay City Tribune*, April 17, 1902.]

Dr. Horace Tupper, a pioneer resident of Bay City, died yesterday at his home, after an illness of over four months, during which time he had been confined to his bed. The doctor had long been a sufferer from cancer, the result of disorders contracted while in the army during the civil war. His family was aware that he could not recover, but his condition did not become critical until a few days ago, a hemorrhage being the cause of death.

Horace Tupper was born October 2, 1830, near Pine Plains, Columbia County, N. Y. He studied with his father, also a physician, until he was twenty-one, and went to Buffalo and entered the office of Dr. Frank Hamilton as a student, and attended the Sisters' General Hospital, remaining there through the term of Prof. Hamilton's charge of the surgical side of the hospital. He then entered the Edward Street Female Hospital in Buffalo, where he combined study and practice for two years. When the war of the rebellion broke out he attached himself to the Fourteenth regulars, and was soon changed to the Second Brigade, Sixth Division, and was assigned to service in the batteries of the Sixth Division, Army of the Tennessee, as surgeon, with the rank of major. He remained with his battery until reaching Corinth, Miss., and saw service at the battles of Pittsburg Landing, Farmington, Corinth and a number of other places. Illness then forced him to retire from the service.

He came to Bay City in 1862 and became interested with Samuel Bolton in the Keystone mill property in West Bay City, building a salt block in connection with the mill. The doctor soon found that he was the only surgeon in the locality, and his services were in great demand at the then village of Bay City and vicinity. In fact, he was the only surgeon in this part of the valley for fifteen years, and until within a very short time of his death was kept busy in professional work. He was a member of the G. A. R. and served as commander of H. P. Merrill post, of this city. He was married at Buffalo, December 24, 1862, to Miss Elizabeth Trinder, daughter of William Trinder, of Chadwington, Oxfordshire, England, who, with their son, survives him. In politics the doctor was always an energetic Re-

publican, but could never be induced to accept any political office.

Dr. Tupper was a charter member of the present organization of the State Medical Society, joining in 1866, and a continuously active member until 1900. He was vice-president in 1883.

OSCAR E. YATES.

1845-1901.

Oscar E. Yates was born in Wayne County, Mich., October 12, 1845, and died at Holland, Mich., October 27, 1901. His youthful days were spent in Calhoun County, where he obtained a practical education in the public schools, and later finished his studies at Mayhew Business College, at Albion, Mich.; after which he taught school, worked on the farm, studying medicine in his leisure hours. He attended the Eclectic Medical Institute, at Cincinnati, Ohio, from which institution he graduated with honors in 1869. Soon after graduation he located at Plainwell, Mich., where he practiced his profession until 1880, when he removed to Overisel, Mich. Three years later he moved to Holland, Mich.

Dr. Yates practiced regular scientific medicine, notwithstanding his graduation from an eclectic school, and lived up to the ethics of the American Medical Association. When his name was presented to the State Medical Society, the Committee on Admissions recommended him unanimously, being convinced that the doctor had discarded all pathies, and he was elected a member without a dissenting vote. No man abhorred quackery in its different forms more than the doctor. He battled for rational medicine, although himself a graduate of an irregular institution, a misfortune to the doctor in many ways; yet it was a credit to his learning and mature judgment that he abandoned the earlier teachings of medical dogmas, and gave his support to scientific medicine. And it was a credit to his professional brethren to recognize and encourage his efforts in this direction and welcome him to the society.

Dr. Yates was in good standing among the medical fraternity in the city of Holland. He was a member of the local society, and became a member of the Michigan State Medical Society in 1896; in the same year he became a member of the American Medical Association. He was local surgeon of the Pere Marquette railroad and a member of the National Railway Surgeons' Association; also a member of the board of pension examining surgeons. He held several public offices; was mayor of the city; member of the school board, and coroner of Ottawa county.

The committee wishes to acknowledge its obligations to Dr. H. Kremmers, of Holland, for the foregoing sketch of Dr. Yates.

GEO. F. HUNTER.

After the presentation of this report, the committee received news of the death of Dr. Geo. F. Hunter, at Sonora, California. He died of pulmonary tuberculosis.

REVISED CONSTITUTION AND BY-LAWS FOR COUNTY SOCIETIES.

Prepared by the Michigan State Medical Society.

CONSTITUTION.

ARTICLE I.—NAME AND TITLE OF THE SOCIETY.

The name and title of this organization shall be the.....County Medical Society.

ARTICLE II.—PURPOSES OF THE SOCIETY.

The purposes of this Society shall be to bring into one organization the physicians of.....county; so that by frequent meetings and full and frank interchange of views they may secure such intelligent unity and harmony in every phase of their labor as will elevate and make effective the opinions of the profession in all scientific, legislative, public health, material and social affairs, to the end that the profession may receive that respect and support within its own ranks and from the community to which its honorable history and great achievements entitle it; and with other county societies to form the Michigan State Medical Society, and through it, with other state associations, to form and maintain the American Medical Association.

ARTICLE III.—ELIGIBILITY.

Every legally registered and reputable physician residing and practicing incounty, who is of good moral and professional standing, and who will agree in writing over his own signature to practice non-sectarian medicine only, and to sever all connections with sectarian colleges, societies and institutions, shall be eligible for membership.

ARTICLE IV.—MEETINGS.

Regular meetings shall be held at such time and place as may be determined by the Society. Special meetings may be called by the President on a written request of five members. Calls for special meetings shall state the object of such

meeting and no business except that stated in the call shall be transacted at such meeting.

ARTICLE V.

The officers of this Society shall consist of a President, Vice-President, Secretary, Treasurer, Delegates, and a Board of three Directors. These officers, except the Board of Directors, shall be elected annually for a term of one year. Delegates shall be elected in accordance with the constitution and by-laws of the Michigan State Medical Society. The Board of Directors shall consist of three members, each to serve for three years. The President, upon his retirement at the annual meeting, shall become the new member of the Board; provided that at the first election after the adoption of this constitution a member of the Board shall be elected for one, one for two, and one for three years. If the President is re-elected to his office, the new member of the Board shall be elected by the Society.

ARTICLE VI.—FUNDS AND EXPENSES.

Funds for meeting the expenses of the Society shall be raised by annual dues, special assessments and voluntary contributions. Funds may be appropriated by vote of the Society for such purposes as will promote its welfare and that of the profession.

ARTICLE VII.—CHARTER.

The Society shall apply to the State Society for a charter at the meeting at which this constitution and by-laws are adopted, or as soon thereafter as practicable, and the charter shall be kept in the custody of the secretary.

ARTICLE VIII.—INCORPORATION.

The Society shall have authority to appoint a Board of Trustees and to provide for articles of incorporation whenever it may deem the same necessary.

ARTICLE IX.—AMENDMENTS.

The Society may amend any article of this constitution by a two-thirds vote of its members at any regular meeting, provided that such amendment shall have been read in open session at a previous regular meeting and shall have been sent by mail to each member ten days in advance of the meeting at which final action is to be taken.

BY-LAWS.

CHAPTER I.—MEMBERSHIP.

SECTION 1.—The Society shall judge of the qualification of its members, but, as it is the only door to the State Medical Society and to the American Medical Association for physicians within its jurisdiction, every reputable and legally qualified physician in county,

as defined in Art. III. of the constitution, shall be entitled to membership.

SEC. 2.—A candidate for membership shall make application to the secretary, and shall state his age, his college and date of graduation, the place in which he has practiced, and the date of registration in this state. The application must be endorsed by two members of this Society. It shall be referred to the Board of Directors, who shall inquire into the standing of the applicant, assure themselves that he or she is duly registered according to the laws of the state, and report at the next regular meeting of this Society. Election shall be by ballot, and two-thirds of the votes of the members present and voting shall be necessary to elect. The application shall be returned to the secretary, who shall file it for future reference. Applications for membership from rejected candidates shall not be received within six months of such rejection. Every applicant, when elected, must sign the constitution and by-laws, agree to support the same and the code of ethics of the American Medical Association, and pay his dues, before he is entitled to the privileges of membership.

SEC. 3.—A physician, accompanying his application with a transfer card from another component county society of this or any other state within 60 days of the issuance of said card, may be admitted without fee on a majority vote of the members present, and without the application being referred to the Board of Directors. Such applications may be acted on at the meeting at which they are presented on the vote of three-fourths of the members present, otherwise they shall lie over until the next regular meeting. No annual dues for the current year shall be charged against such members, provided the same have been paid to the Society from which the applicant comes.

SEC. 4.—A physician residing in an immediately adjoining county may become a member of this Society in like manner and on the same terms as a physician living in this county, on permission of the county society of the county in which the applicant lives, if there be one, or of the state councilor for this jurisdiction.

SEC. 5.—A member in good standing who is free from all indebtedness to this Society, and against whom no charges are pending, wishing to withdraw, shall be granted a transfer card. This card shall state the date the member associated himself with this Society, the date of issuance of the card, and shall be signed by the President and Secretary. It shall be accompanied with a copy of the application presented at the time the member joined the Society, for

information to the Society to which the member desires to attach himself.

SEC. 6.—All members shall be equally privileged to attend all meetings and take part in all proceedings, and shall be eligible to any office or honor within the gift of the Society, so long as they conform to this constitution and by-laws, including the payment of the dues to this Society and to the State Society: Provided, that no member under sentence of expulsion shall take part in any of the proceedings, or be eligible to any office until relieved of such disability. And, provided further, that none of the privileges of membership shall be extended to any person not a member of this Society except on a majority vote of the Society in regular meeting.

SEC. 7.—A member who is guilty of a criminal offense or of gross misconduct, either as a physician or as a citizen, or who violates any of the provisions of this constitution and by-laws, shall be liable to censure, suspension or expulsion. Charges against a member must be made in writing and be delivered to the Secretary, who shall immediately furnish a copy to the accused and to the Chairman of the Board of Directors. The Board of Directors shall investigate the charges on their merits, but no action shall be taken by the Board before giving the accused and accusers ample opportunity to be heard. Nor shall any action be taken by the Board within ten days of the presentation of the charges to the accused. The board shall report (1) that the charges are not sustained; or (2) that the charges are sustained, and that the accused be (a), censured; (b), suspended for a definite time, or (c), expelled. Censure or suspension shall require a two-thirds vote of the members present and voting, and a three-fourths vote of those present and voting shall be required to expel a member. No action shall be taken by the Society in such cases until at least six weeks have elapsed since the filing of the charges. A member suspended for a definite time shall be reinstated at the expiration of the time, without action on his part or on the part of the Society.

SEC. 8.—Kindly efforts in the interest of peace, conciliation or reformation, so far as possible and expedient, shall precede the filing of formal charges affecting the character or standing of a member, and the accused shall have opportunity to be heard in his own defense in all trials and proceedings of this nature.

SEC. 9.—Members expelled from this Society for any cause shall be eligible for membership after one year from date of expulsion and on the same terms and in like manner as original applicants.

CHAPTER II.—POWERS AND DUTIES.

SECTION 1.—This Society shall have general direction of the affairs of the medical profession of the county, and its influence shall be constantly exerted to better the scientific, material and social condition of every physician within its jurisdiction. Systematic efforts shall be made by each member, and by the Society as a whole, to increase the membership until it embraces every reputable physician in the county, as defined in Art. III. of the constitution.

SEC. 2.—A meeting shall be held at p. m. on the in each month (or oftener). members shall constitute a quorum. The officers and committee on program shall profit by experience and by the example of other similar societies, and strive to arrange for the most attractive and successful proceedings for each meeting. Younger members especially shall be encouraged to do post-graduate and original research work, and to give this Society the first results of such labors. Crisp papers and discussions and reports of cases shall be arranged for and encouraged, and tedious and profitless proceedings and discussions shall be avoided as far as practicable.

SEC. 3.—Agreements and schedules of fees shall not be made by this Society, but at least one meeting during each year shall be set apart for a discussion of the business affairs of the profession of the county, with the view of adopting the best methods for the guidance of all. In all proper ways the public shall be taught that business methods and prompt collections are essential to the equipment of the modern physician and surgeon, and that it suffers even more than the profession when this is not recognized.

SEC. 5.—The Society shall endeavor to educate its members to the belief that the physician should be a leader in his community, in character, in learning, in dignified and manly bearing, and in courteous and open treatment of his brother physicians, to the end that the profession may occupy that place in its own and the public estimation to which it is entitled.

CHAPTER III.—OFFICERS.

SECTION 1.—The officers of the Society shall be elected at the (January) meeting in each year, which shall be known as the annual meeting. Nominations shall be made by informal ballot, and all elections shall be by ballot. The vote of a majority of all the members present shall be necessary to an election.

SEC. 2.—The President shall preside at all meetings of the Society, and perform such other duties as custom and parliamentary usage may require.

SEC. 3.—The Vice-President shall assist the President in the performance of his duties, shall preside in his absence, and, on his death, resignation or removal from the county, shall succeed to the presidency.

SEC. 4.—The Secretary shall record the minutes of the meetings and receive and care for all records and papers belonging to the Society, including its charter. He shall keep account of and promptly turn over to the Treasurer all funds of the Society which may come into his hands. He shall make and keep a correct list of the members of this Society in good standing, noting of each his correct name, address, place and date of graduation, and the date of the certificate entitling him to practice medicine; and in a separate list he shall note the same facts in regard to each legally qualified physician in this county not a member of this Society. It shall be his duty to send annually a copy of such lists, on blank forms furnished him for that purpose, to the Councilor of his district by the first day of January. In making such lists he shall endeavor to account for each physician who has moved into or out of the county during the year, stating, when possible, both his present and past address. At the same time, and with his report of such lists of members and physicians, he shall transmit to the State Society his order on the Treasurer for the annual dues of the State Society.

SEC. 5.—The Treasurer shall receive all dues and money belonging to the Society from the hands of the Secretary or members, and shall pay out the same only on the written order of the Secretary.

SEC. 6.—The Delegates shall attend and faithfully represent the members of this Society and the profession of this county in the House of Delegates of the State Society, and shall make a report of the proceedings of that body to this Society at the earliest opportunity.

CHAPTER IV.—COMMITTEES.

SECTION 1.—There shall be a Board of Directors as provided in the constitution, a standing committee on programs and scientific work, a committee on public health and legislation, and such special committees as may from time to time be deemed necessary.

SEC. 2.—*Board of Directors.* The Board of Directors, elected as provided by Article V. of the constitution, and of which the President and Secretary shall be *ex-officio* members, shall be the censors of the Society. It shall consider all questions involving the rights and standing of members and pass upon all applications for mem-

bership. All questions of an ethical nature brought before the Society shall be referred to the Board without debate. It shall hear and decide all questions of discipline affecting the conduct of members, and its decision in all such cases shall be final, except that any member shall have the right of appeal to the Council of the Michigan State Medical Society. It shall make careful inquiry into the condition of the profession of the county and shall have authority to adopt such methods as may be deemed most efficient for building up and increasing the interest in the Society. It shall be the further duty of the Board to hold the official bond of the Treasurer for the faithful execution of his office, annually to audit and to authenticate his accounts, and to provide suitable meeting places for itself and the Society.

In so far as possible all questions other than the discussion of papers shall be referred to the Board, which shall consider the same deliberately and bring its decision before the Society in such shape that the members may act intelligently and promptly.

In case of the absence of a member of the Board, the President may appoint some member to fill the vacancy. The senior member of the Board in point of service shall be the Chairman of the Board.

SEC. 3.—Regular meetings of the Board shall be held at the time of the regular meetings of the Society. Special meetings may be called by the Chairman or by a quorum of the Board.

SEC. 4.—*Committee on Program and Scientific Work.* This committee shall consist of the President, Vice-President and Secretary. It shall be its duty to promote the scientific and social functions of the Society by arranging attractive programs for each meeting and by urging each member to take part in the scientific work. It shall stimulate fraternalism and good feeling among the members in every way possible.

SEC. 5.—*Committee on Public Health and Legislation.* This committee shall consist of three members, who shall be appointed annually by the President. It shall be its duty to enforce and support the sanitary and medical laws of the state in this county, to co-operate with the legislative committee of the State Society in all matters pertaining to legislation, and to prosecute quacks and medical pretenders in this county.

CHAPTER V.—FUNDS AND EXPENSES.

SECTION 1.—The annual dues for each member of this Society shall be..... dollars, to be paid on or before the annual meeting for the election of officers in each year.dollar of such dues shall be

used to defray the expenses of the Society, and two dollars shall be forwarded by the Secretary, with his annual report, to the Secretary of the State Society. Any member who shall fail to pay his dues on or before the date named shall be held as suspended in this Society, and in the State Society, and his name shall be placed on the list of non-affiliated physicians in the report of the Secretary to the Councilor of his district for that year, and shall so remain until such disability is removed.

SEC. 2.—The fiscal year shall be from January to December, inclusive.

CHAPTER VI.—ORDER OF BUSINESS.

The order of business shall be as follows:

1. Call to order by the President.
2. Reading of minutes of last meeting.
3. Clinical cases.
4. Papers and discussions.
5. Unfinished business.
6. Miscellaneous business
7. Announcements.
8. Adjournment.

AT ANNUAL MEETING.

1. Call to order by the President.
2. Reading of minutes of last meeting.
3. Communications.
4. Report of Secretary.
5. Report of Treasurer.
6. Report of Board of Directors.
7. Report of Delegates to State Society.
8. Address of President.
9. Election of officers.
10. Miscellaneous business.
11. Adjournment.

CHAPTER VII.—RULES OF ORDER.

The deliberations of this Society shall be governed by parliamentary usage as contained in Roberts' Rules of Order, unless otherwise determined by vote.

CHAPTER VIII.—CODE OF ETHICS.

The Code of Ethics of the American Medical Association shall be the Code of this Society.

CHAPTER IX.—AMENDMENTS.

These by-laws may be amended at any regular meeting by a two-thirds vote therefor, provided that such amendment has been read in open session at the preceding regular meeting and a copy of the same has been sent to each member by the Secretary ten days in advance of the meeting at which final action is to be taken.

The first meeting of the Committee on Scientific Work and of the Committee on Arrangements will be held in Detroit on Tuesday, December 2nd, to consider ways and means for the next annual meeting to be held in June at Detroit.

Books Received.

Transactions of the Medical Society of the State of New York, 1902.

A Quiz-Compend of Physiology, by A. P. Brubaker, A. M., M. D.

Transactions of the State Medical Society of Wisconsin, 1902.

Medical Directory of New York, New Jersey and Connecticut, 1902.

Transactions of the State Medical Association of Texas, 1902.

Book Review.

General paresis is a disease frequent and important enough to serve as the subject for a most interesting symposium before the New York State Medical Society last year, of increasing frequency and yet too little known, except in the most vague way, by the general practitioner.

General Paresis (the subject of this book) is worthy of more attention than is commonly given it, and this volume ought to be helpful in furthering somewhat a better knowledge of its distinctive features, its etiology, varieties, course, termination, pathology, etc.

The author's asylum experience of twenty-five years is freely drawn upon and many authorities are abundantly quoted.

If we were to criticise any one feature as detracting from the general attractiveness of the book, it would be the somewhat monotonous quotation of lengthy case-histories to illustrate minor points.

We bespeak for the volume that attention at the hands of the general practitioner which it well merits.

The illustrations, some original and some borrowed, are generally good, though some of the wood cuts are poor.

The work of the publisher is generally well done.

General Paresis, Practical and Clinical, by Robert Howland Chase, A. M., M. D., Physician-in-Chief Friends' Asylum for the Insane. Philadelphia: P. Blakiston's Son & Co., 1902; pp. 291; \$1.75.

CHAS. W. HITCHCOCK.